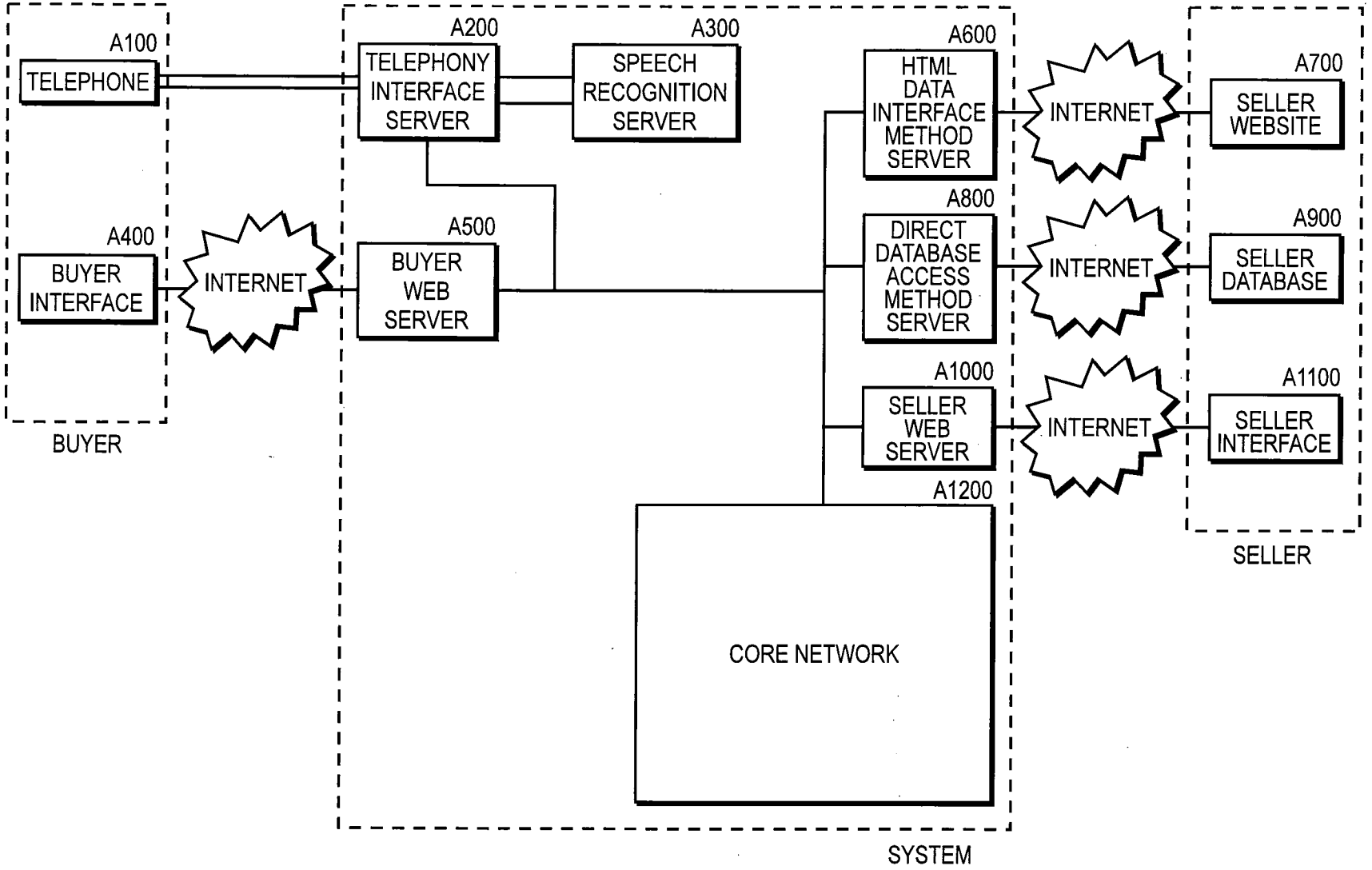

A100
TELEPHONE
A400
BUYER INTERFACE
BUYER
INTERNET
A200
TELEPHONY INTERFACE SERVER
A300
SPEECH RECOGNITION SERVER
A500
BUYER WEB SERVER
A600
HTML DATA INTERFACE METHOD SERVER
A800
DIRECT DATABASE ACCESS METHOD SERVER
A1000
SELLER WEB SERVER
A1200
CORE NETWORK
SYSTEM
INTERNET
INTERNET
INTERNET
A700
SELLER WEBSITE
A900
SELLER DATABASE
A1100
SELLER INTERFACE
SELLER

FIG. 1

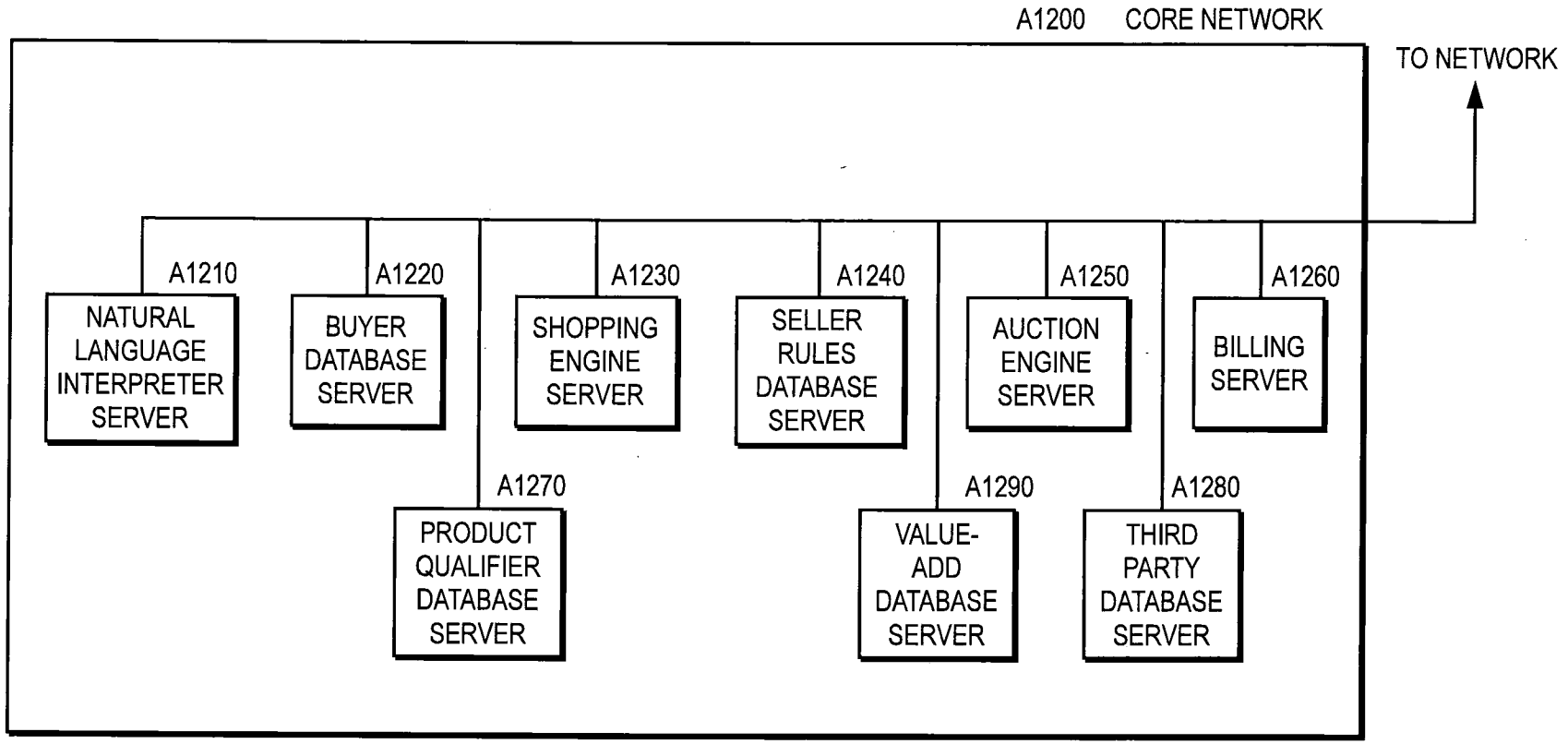

A1200 CORE NETWORK
TO NETWORK
A1210
NATURAL LANGUAGE INTERPRETER SERVER
A1220
BUYER DATABASE SERVER
A1230
SHOPPING ENGINE SERVER
A1240
SELLER RULES DATABASE SERVER
A1250
AUCTION ENGINE SERVER
A1260
BILLING SERVER
A1270
PRODUCT QUALIFIER DATABASE SERVER
A1290
VALUE-ADD DATABASE SERVER
A1280
THIRD PARTY DATABASE SERVER

FIG. 2

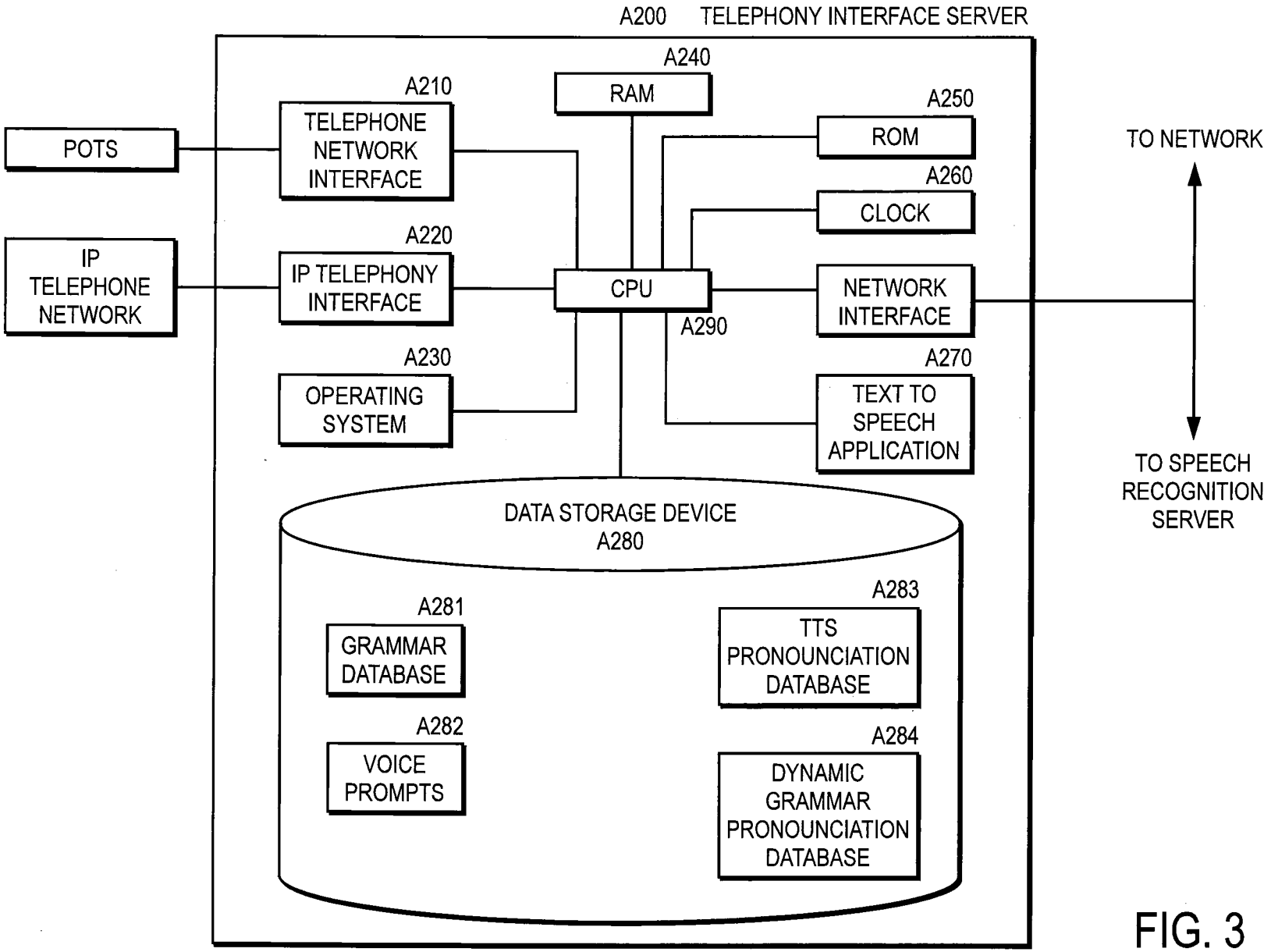

A200 TELEPHONY INTERFACE SERVER
A240
RAM
A210
TELEPHONE NETWORK INTERFACE
A250
ROM
A260
CLOCK
POTS
IP TELEPHONE NETWORK
A220
IP TELEPHONY INTERFACE
CPU
NETWORK INTERFACE
A290
A230
OPERATING SYSTEM
A270
TEXT TO SPEECH APPLICATION
TO NETWORK
TO SPEECH RECOGNITION SERVER
DATA STORAGE DEVICE
A280
A281
GRAMMAR DATABASE
A283
TTS PRONOUNCIATION DATABASE
A282
VOICE PROMPTS
A284
DYNAMIC GRAMMAR PRONOUNCIATION DATABASE

FIG. 3

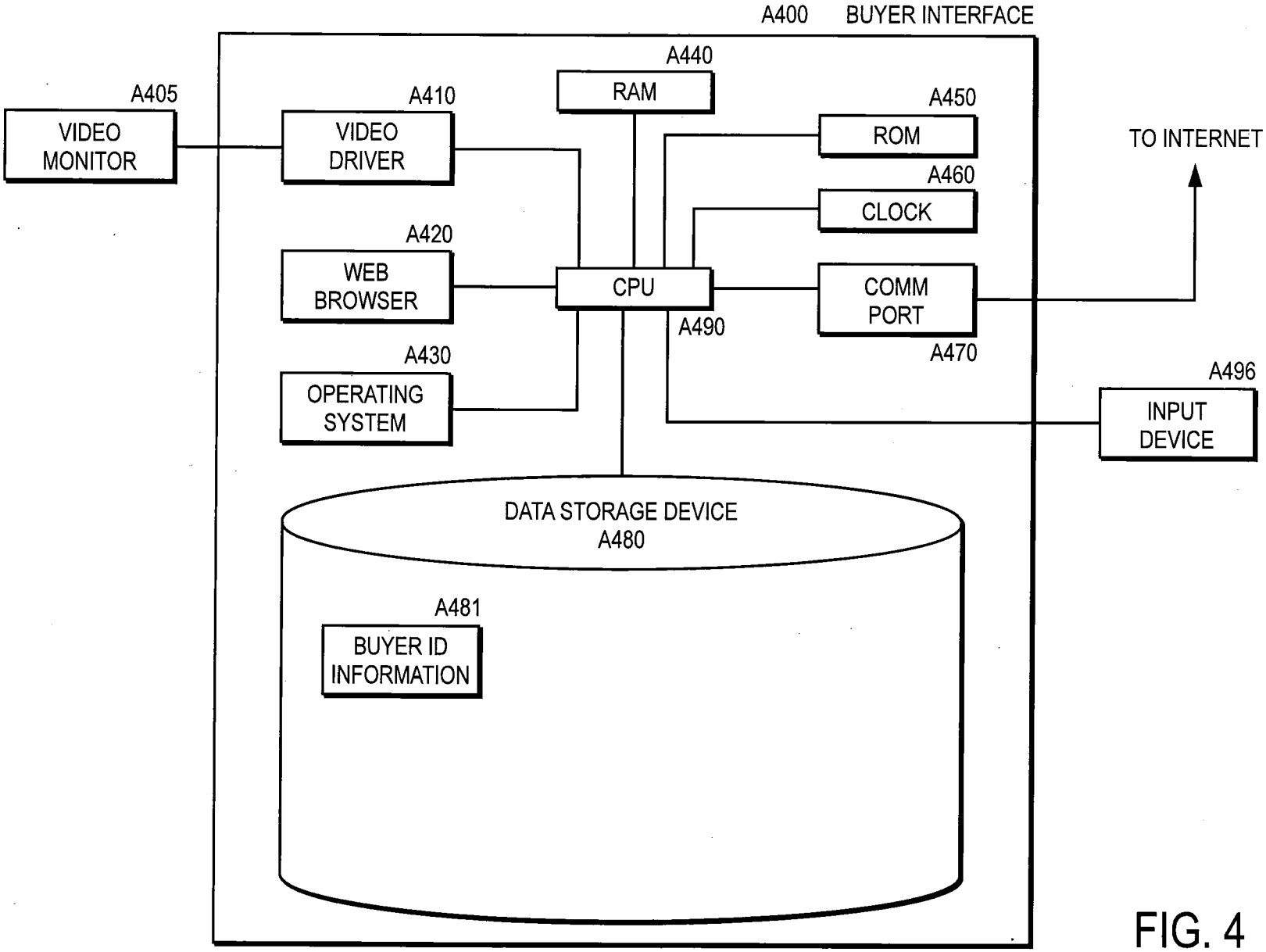

A400 BUYER INTERFACE
A405
VIDEO MONITOR
A410
VIDEO DRIVER
A440
RAM
A450
ROM
A460
CLOCK
TO INTERNET
A420
WEB BROWSER
CPU
COMM PORT
A490
A470
A430
OPERATING SYSTEM
A496
INPUT DEVICE
DATA STORAGE DEVICE
A480
A481
BUYER ID INFORMATION

FIG. 4

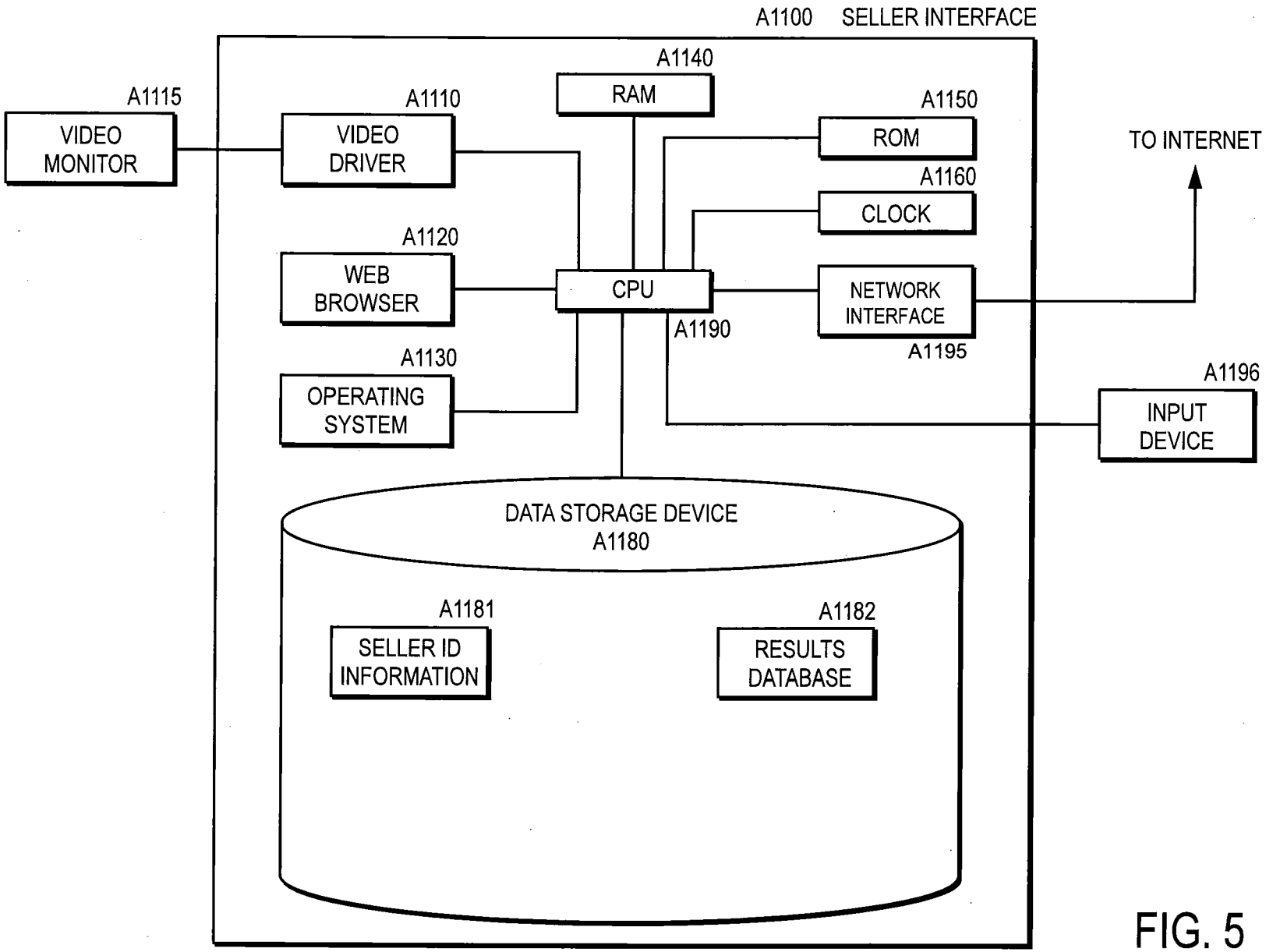

A1100 SELLER INTERFACE
A1140
RAM
A1115
VIDEO MONITOR
A1110
VIDEO DRIVER
A1150
ROM
TO INTERNET
A1160
CLOCK
A1120
WEB BROWSER
CPU
NETWORK INTERFACE
A1190
A1195
A1130
OPERATING SYSTEM
A1196
INPUT DEVICE
DATA STORAGE DEVICE
A1180
A1181
SELLER ID INFORMATION
A1182
RESULTS DATABASE

FIG. 5

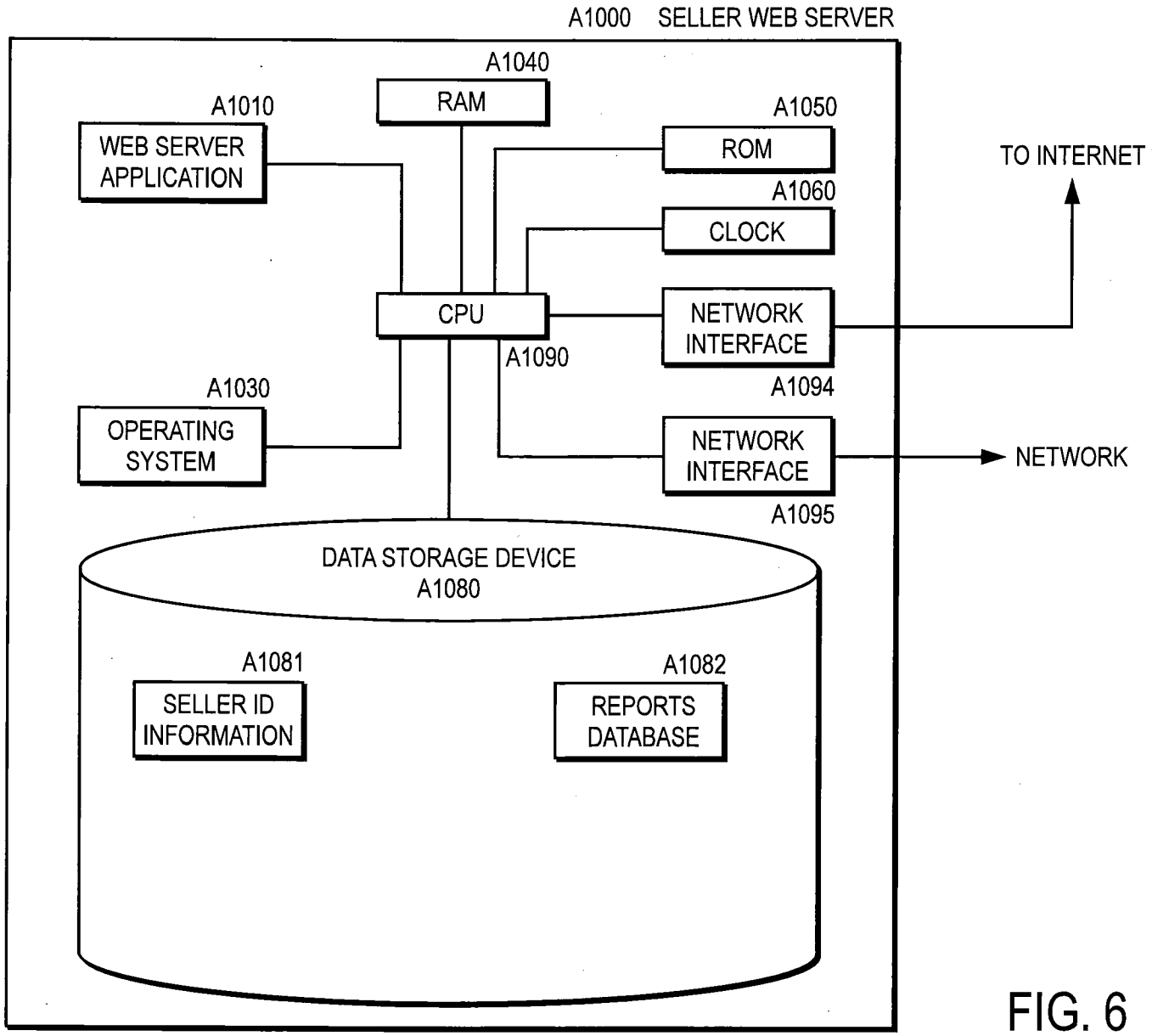

A1000 SELLER WEB SERVER
A1040
RAM
A1010
WEB SERVER APPLICATION
A1050
ROM
A1060
CLOCK
TO INTERNET
CPU
NETWORK INTERFACE
A1090
A1094
A1030
OPERATING SYSTEM
NETWORK INTERFACE
NETWORK
A1095
DATA STORAGE DEVICE
A1080
A1081
SELLER ID INFORMATION
A1082
REPORTS DATABASE

FIG. 6

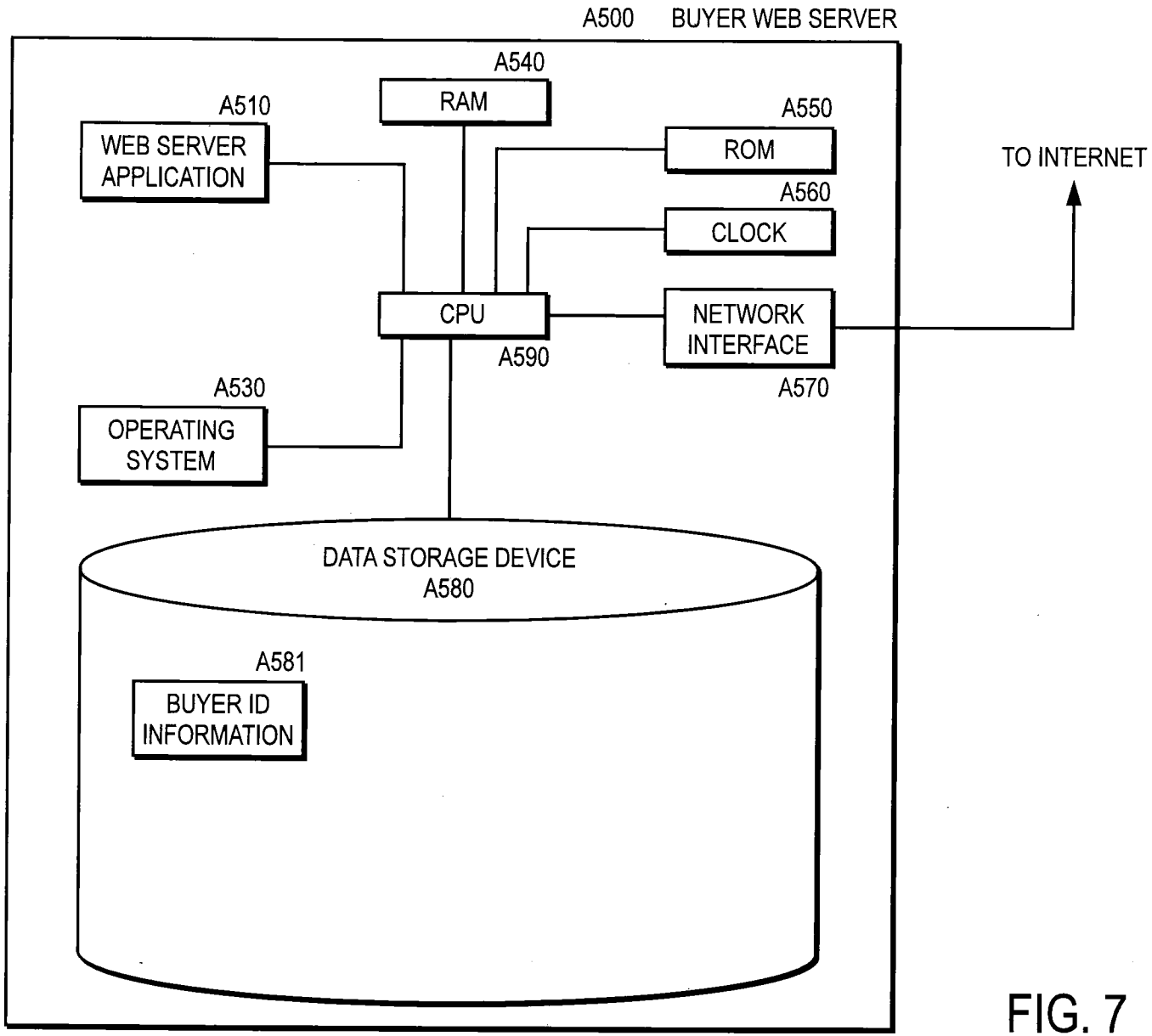

A500 BUYER WEB SERVER
A540
RAM
A510
WEB SERVER APPLICATION
A550
ROM
TO INTERNET
A560
CLOCK
CPU
A590
NETWORK INTERFACE
A570
A530
OPERATING SYSTEM
DATA STORAGE DEVICE
A580
A581
BUYER ID INFORMATION

FIG. 7

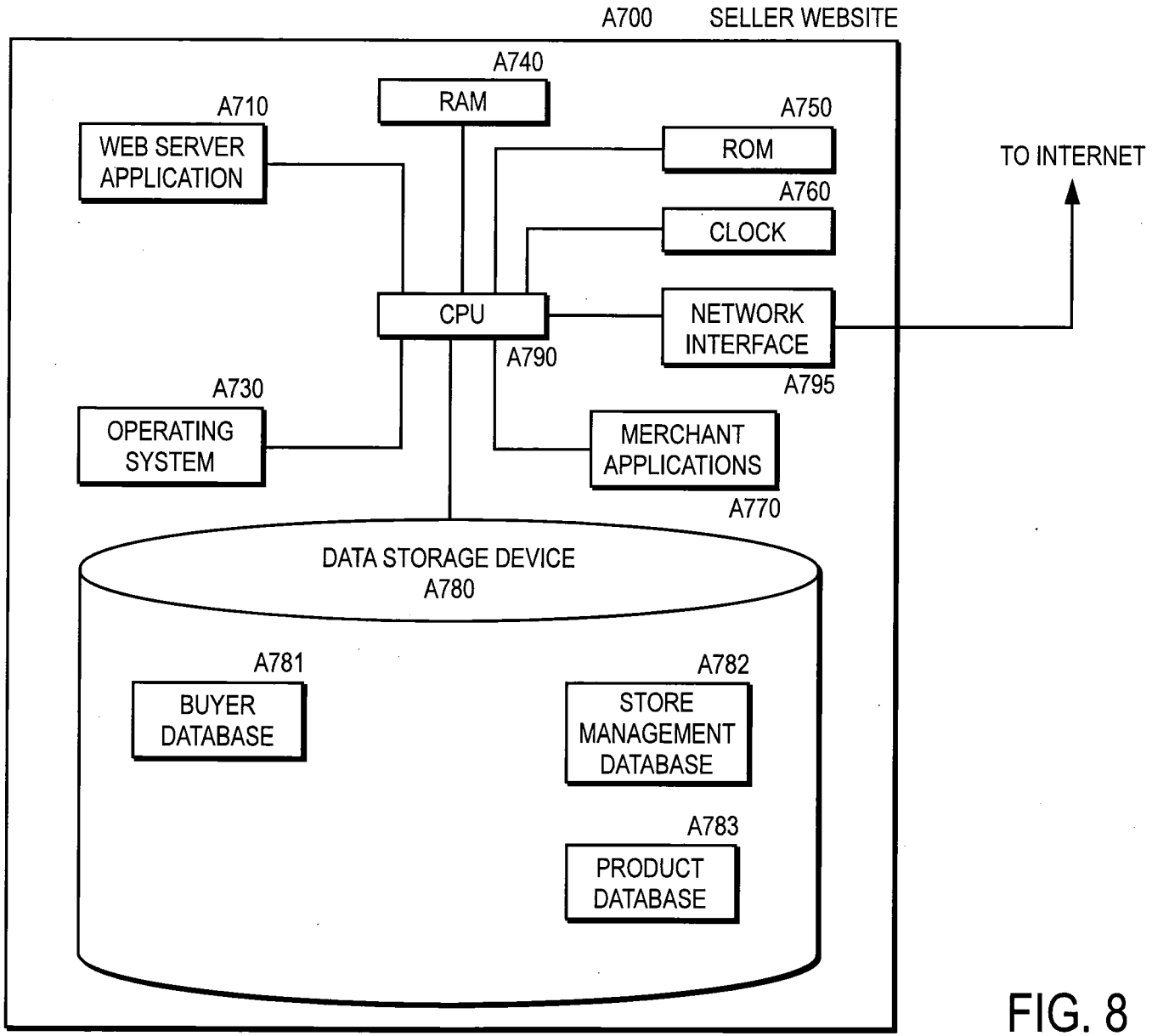

A700
SELLER WEBSITE
A740
RAM
A710
WEB SERVER APPLICATION
A750
ROM
TO INTERNET
A760
CLOCK
CPU
NETWORK INTERFACE
A790
A795
A730
OPERATING SYSTEM
MERCHANT APPLICATIONS
A770
DATA STORAGE DEVICE
A780
A781
BUYER DATABASE
A782
STORE MANAGEMENT DATABASE
A783
PRODUCT DATABASE

FIG. 8

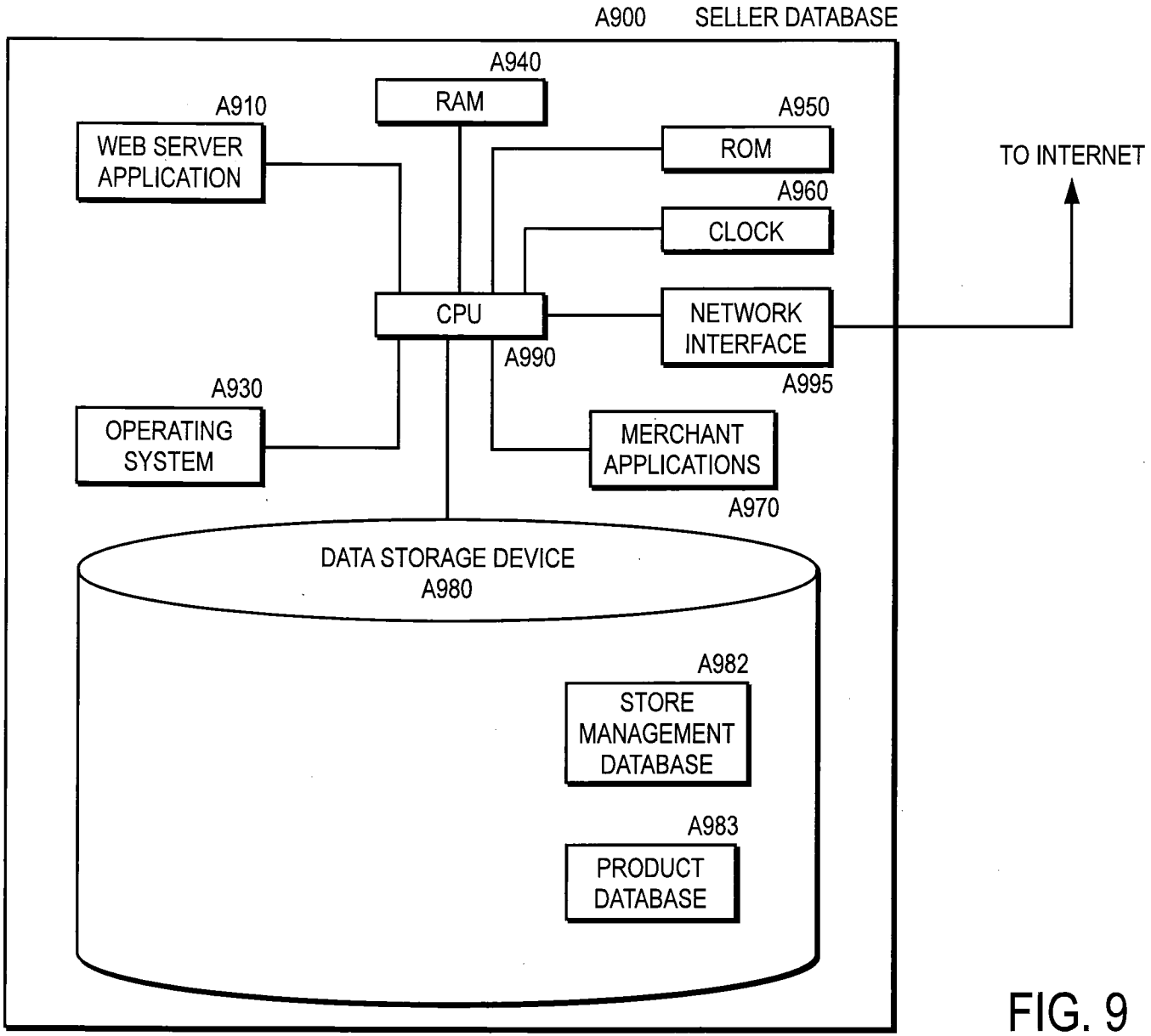

A900 SELLER DATABASE
A940
RAM
A910
WEB SERVER APPLICATION
A950
ROM
TO INTERNET
A960
CLOCK
CPU
NETWORK INTERFACE
A990
A995
A930
OPERATING SYSTEM
MERCHANT APPLICATIONS
A970
DATA STORAGE DEVICE
A980
A982
STORE MANAGEMENT DATABASE
A983
PRODUCT DATABASE

FIG. 9

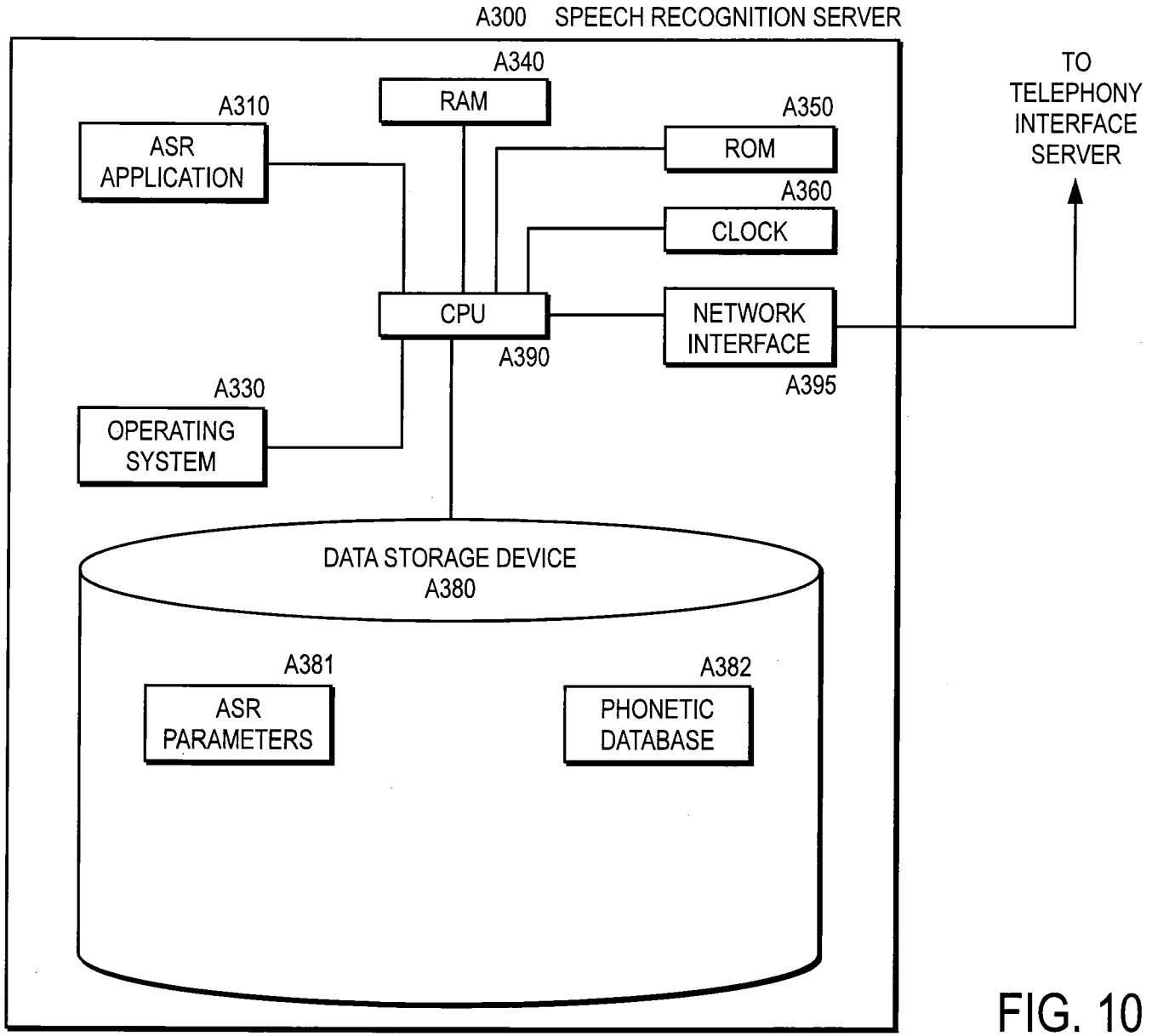

A300 SPEECH RECOGNITION SERVER
A340
RAM
A310
ASR APPLICATION
A350
ROM
A360
CLOCK
CPU
A390
NETWORK INTERFACE
A395
TO TELEPHONY INTERFACE SERVER
A330
OPERATING SYSTEM
DATA STORAGE DEVICE
A380
A381
ASR PARAMETERS
A382
PHONETIC DATABASE

FIG. 10

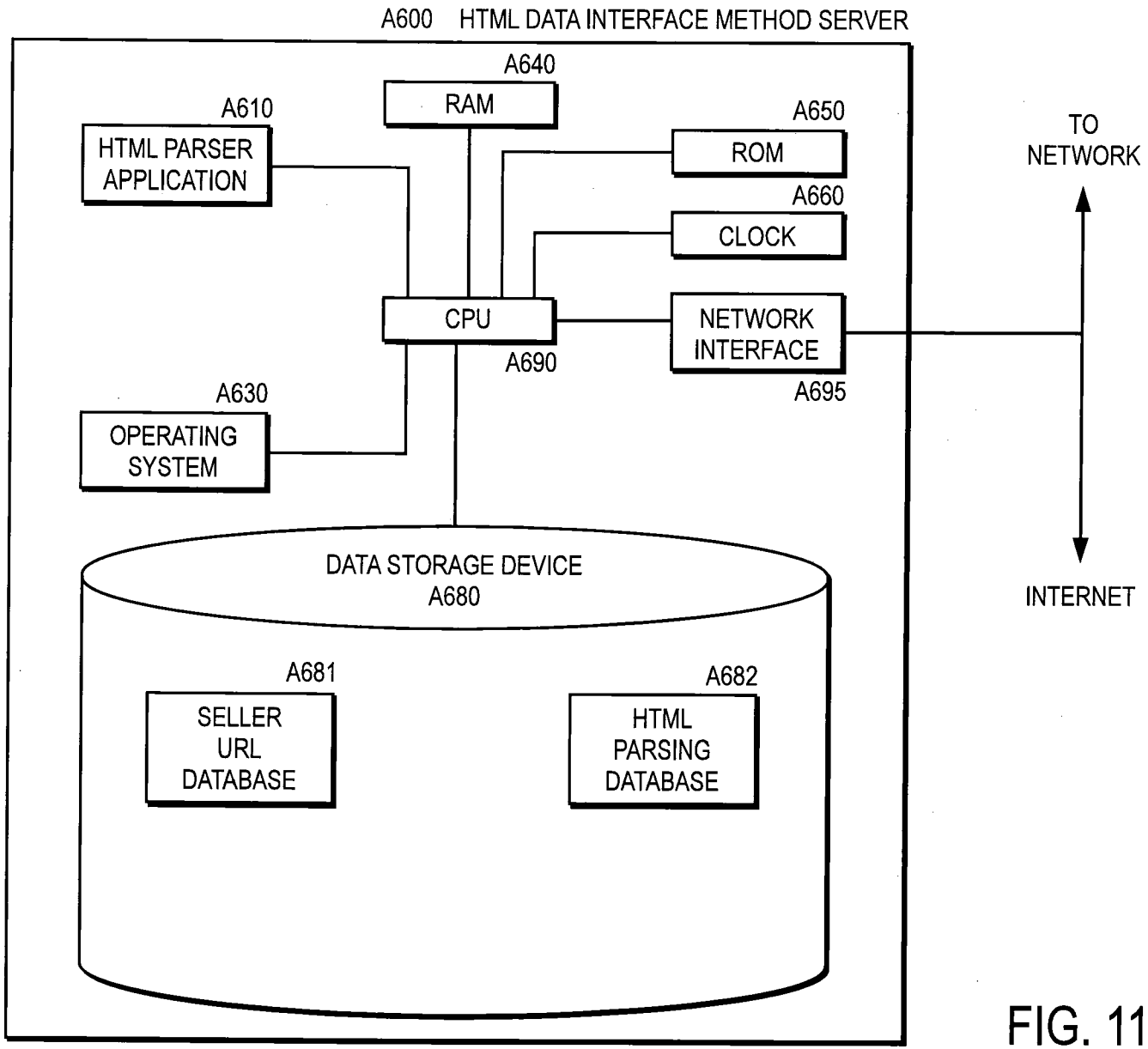

A600 HTML DATA INTERFACE METHOD SERVER
A640
RAM
A610
HTML PARSER APPLICATION
A650
ROM
A660
CLOCK
CPU
A690
NETWORK INTERFACE
A695
TO NETWORK
A630
OPERATING SYSTEM
DATA STORAGE DEVICE
A680
A681
SELLER URL DATABASE
A682
HTML PARSING DATABASE
INTERNET

FIG. 11

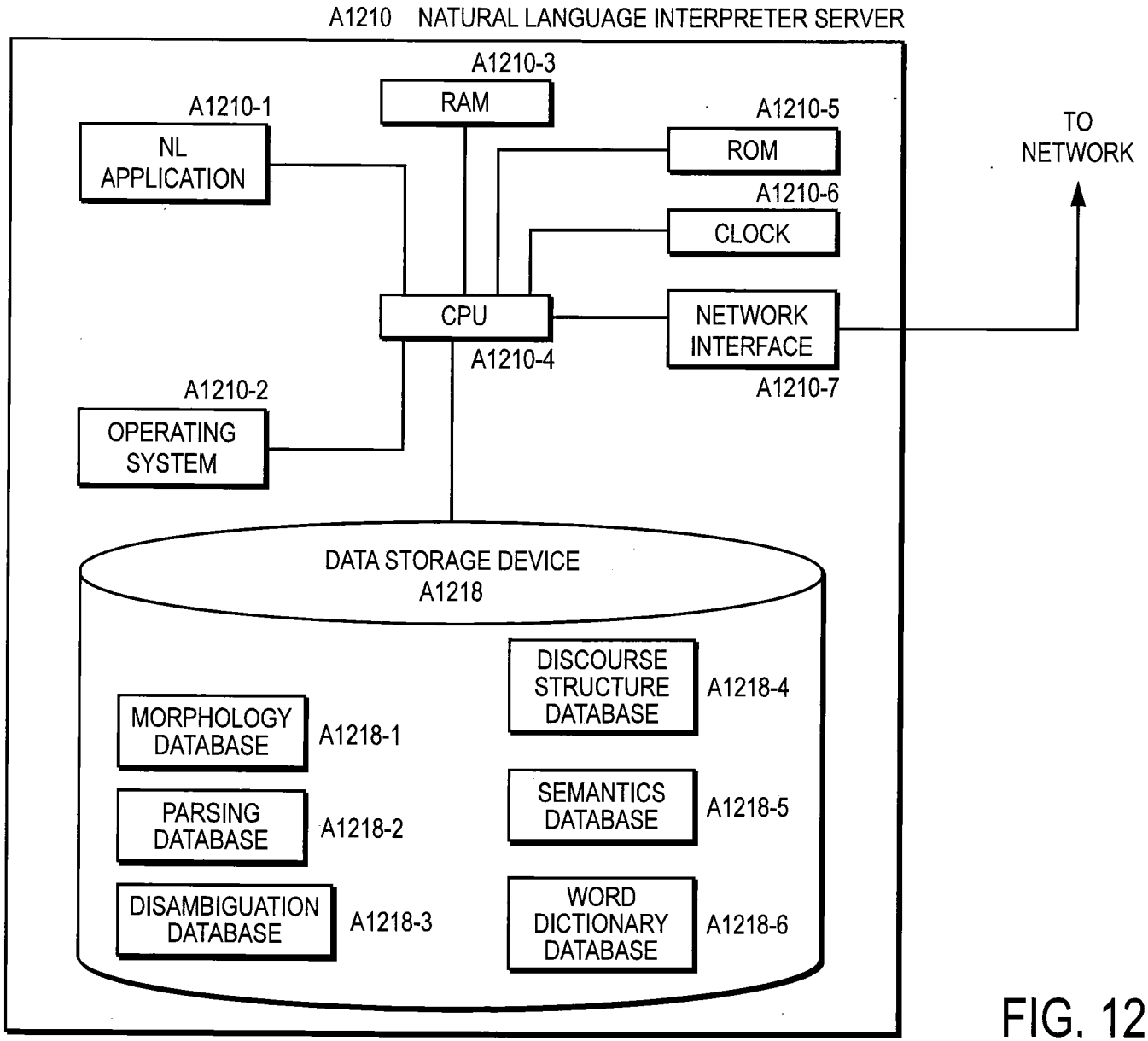

A1210 NATURAL LANGUAGE INTERPRETER SERVER
A1210-3
RAM
A1210-1
NL APPLICATION
A1210-5
ROM
A1210-6
CLOCK
CPU
A1210-4
NETWORK INTERFACE
A1210-7
TO NETWORK
A1210-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1218
DISCOURSE STRUCTURE DATABASE
A1218-4
MORPHOLOGY DATABASE
A1218-1
SEMANTICS DATABASE
A1218-5
PARSING DATABASE
A1218-2
DISAMBIGUATION DATABASE
A1218-3
WORD DICTIONARY DATABASE
A1218-6

FIG. 12

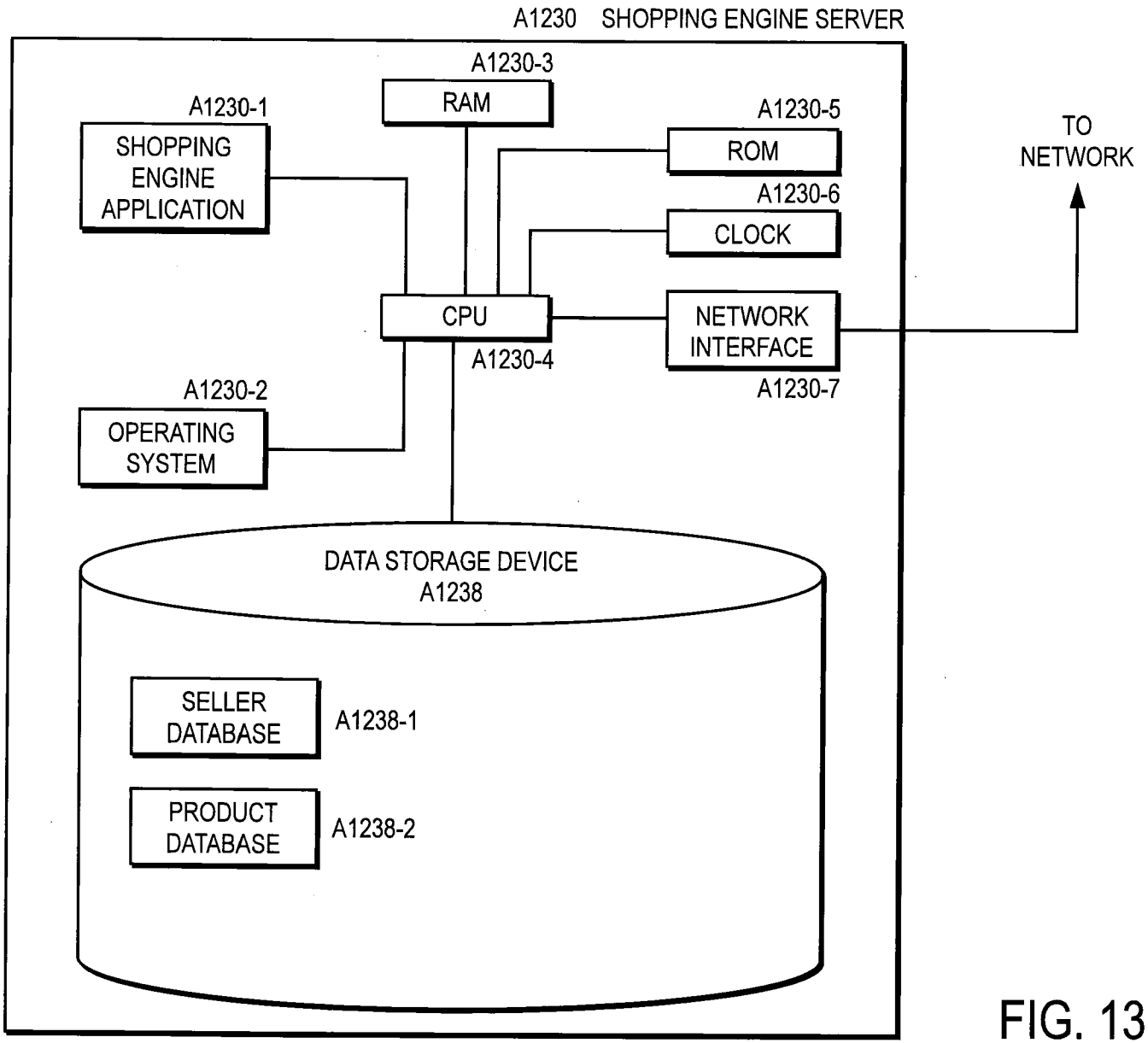

A1230 SHOPPING ENGINE SERVER
A1230-3
RAM
A1230-1
SHOPPING ENGINE APPLICATION
A1230-5
ROM
TO NETWORK
A1230-6
CLOCK
CPU
NETWORK INTERFACE
A1230-4
A1230-7
A1230-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1238
SELLER DATABASE
A1238-1
PRODUCT DATABASE
A1238-2

FIG. 13

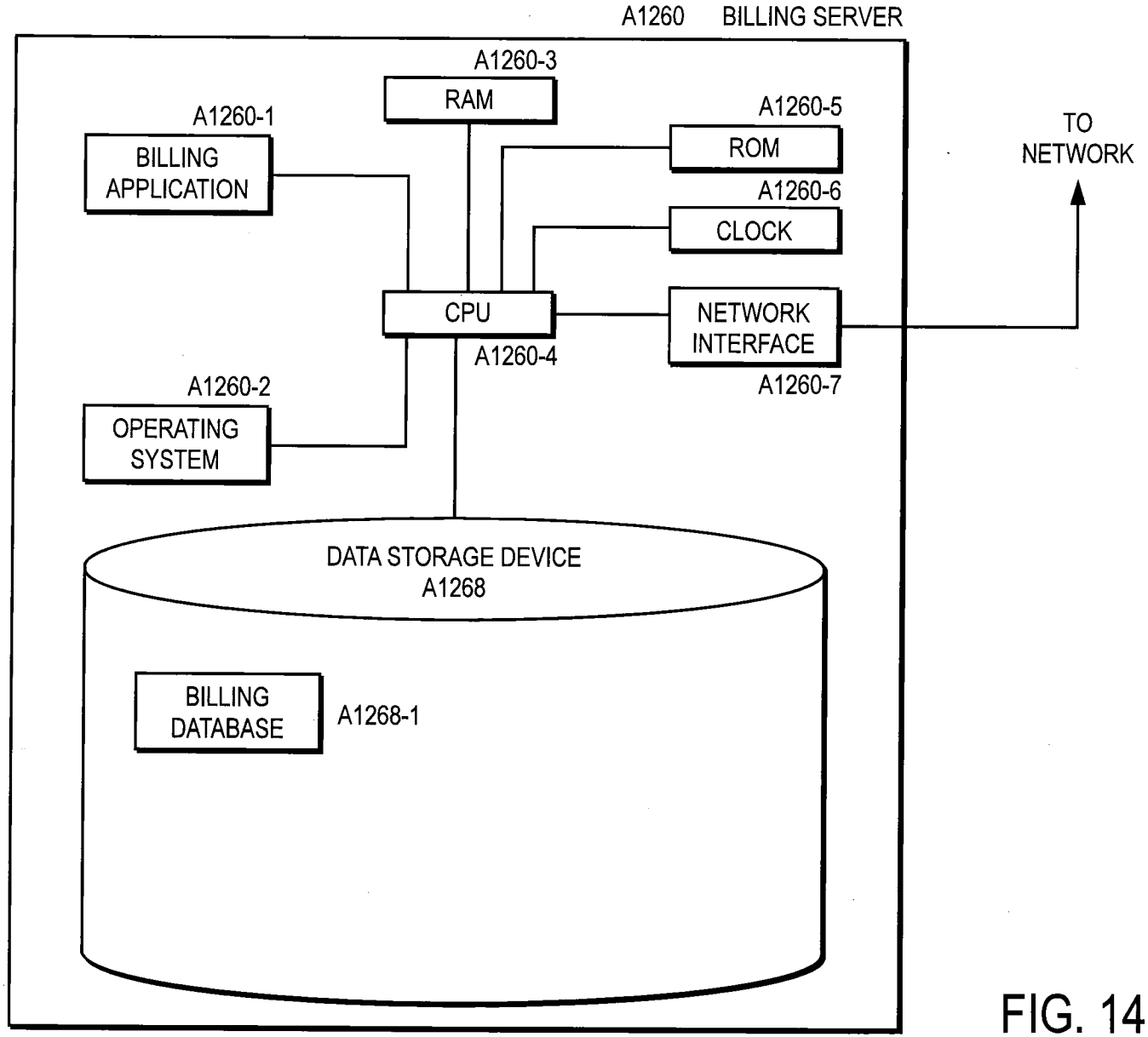

A1260 BILLING SERVER
A1260-3
RAM
A1260-1
BILLING APPLICATION
A1260-5
ROM
TO NETWORK
A1260-6
CLOCK
CPU
NETWORK INTERFACE
A1260-4
A1260-7
A1260-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1268
BILLING DATABASE
A1268-1

FIG. 14

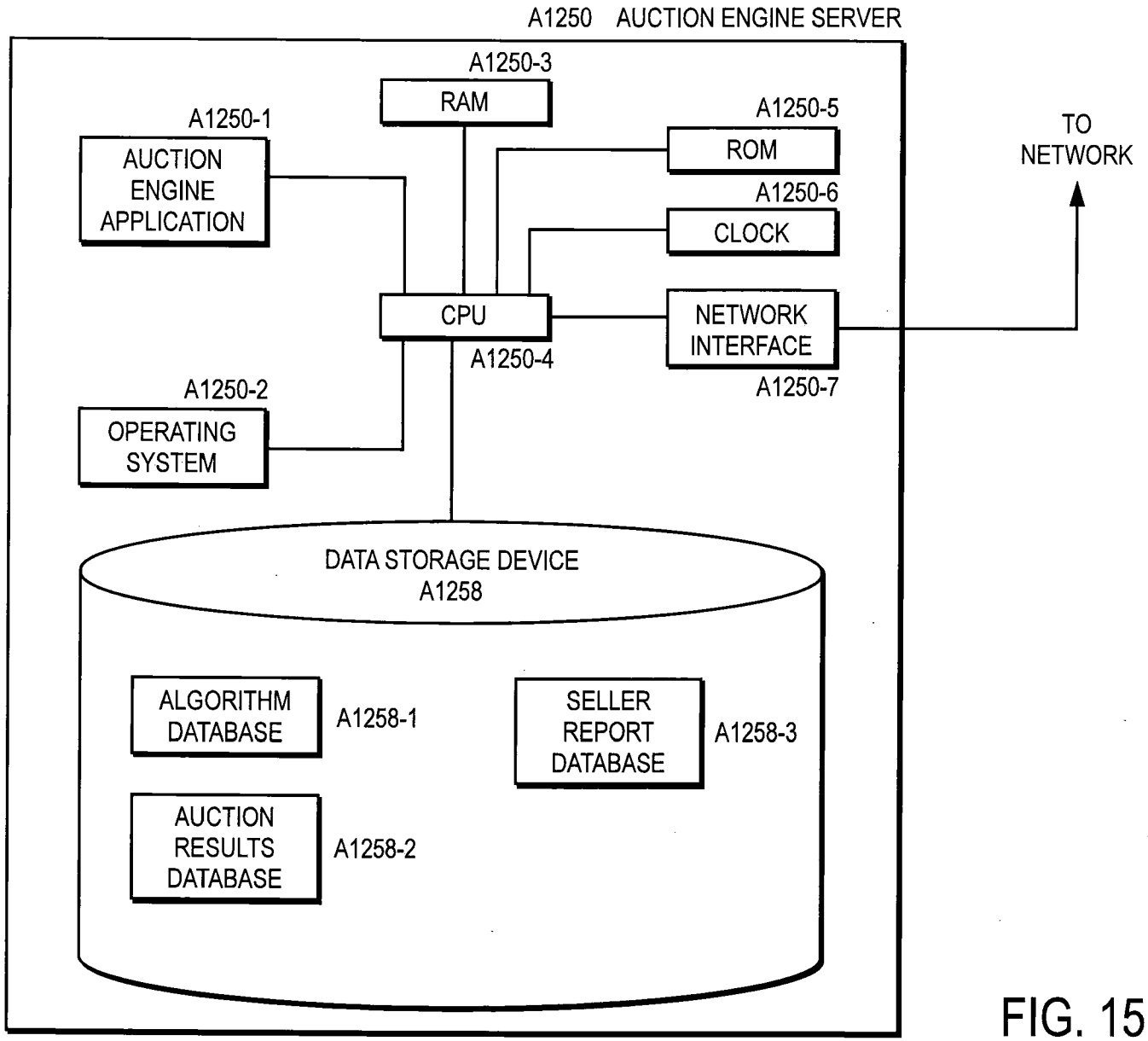

A1250 AUCTION ENGINE SERVER
A1250-3
RAM
A1250-1
AUCTION ENGINE APPLICATION
A1250-5
ROM
A1250-6
CLOCK
TO NETWORK
CPU
A1250-4
NETWORK INTERFACE
A1250-7
A1250-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1258
ALGORITHM DATABASE
A1258-1
SELLER REPORT DATABASE
A1258-3
AUCTION RESULTS DATABASE
A1258-2

FIG. 15

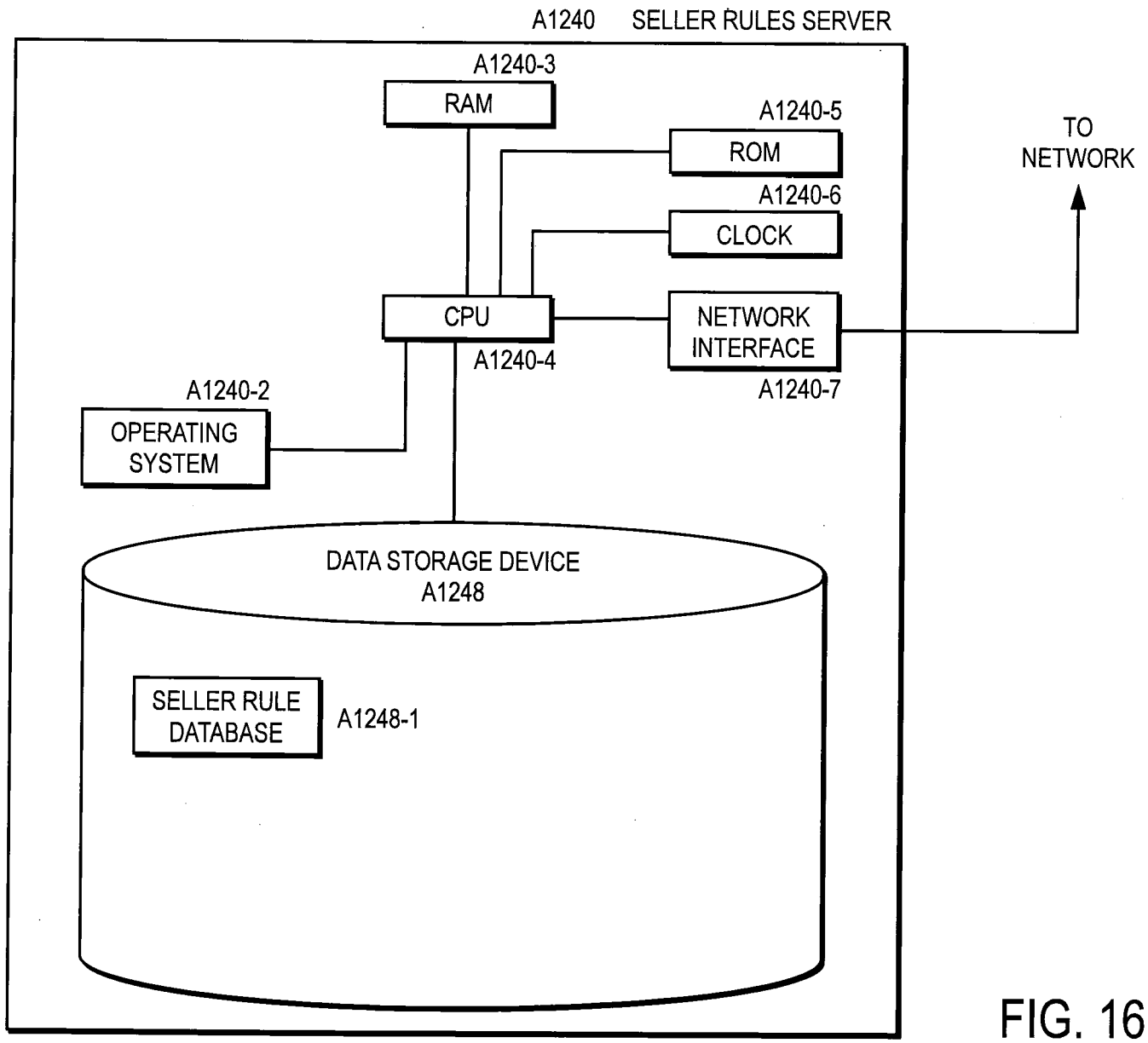

A1240 SELLER RULES SERVER
A1240-3
RAM
A1240-5
ROM
A1240-6
CLOCK
CPU
A1240-4
NETWORK INTERFACE
A1240-7
TO NETWORK
A1240-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1248
SELLER RULE DATABASE
A1248-1

FIG. 16

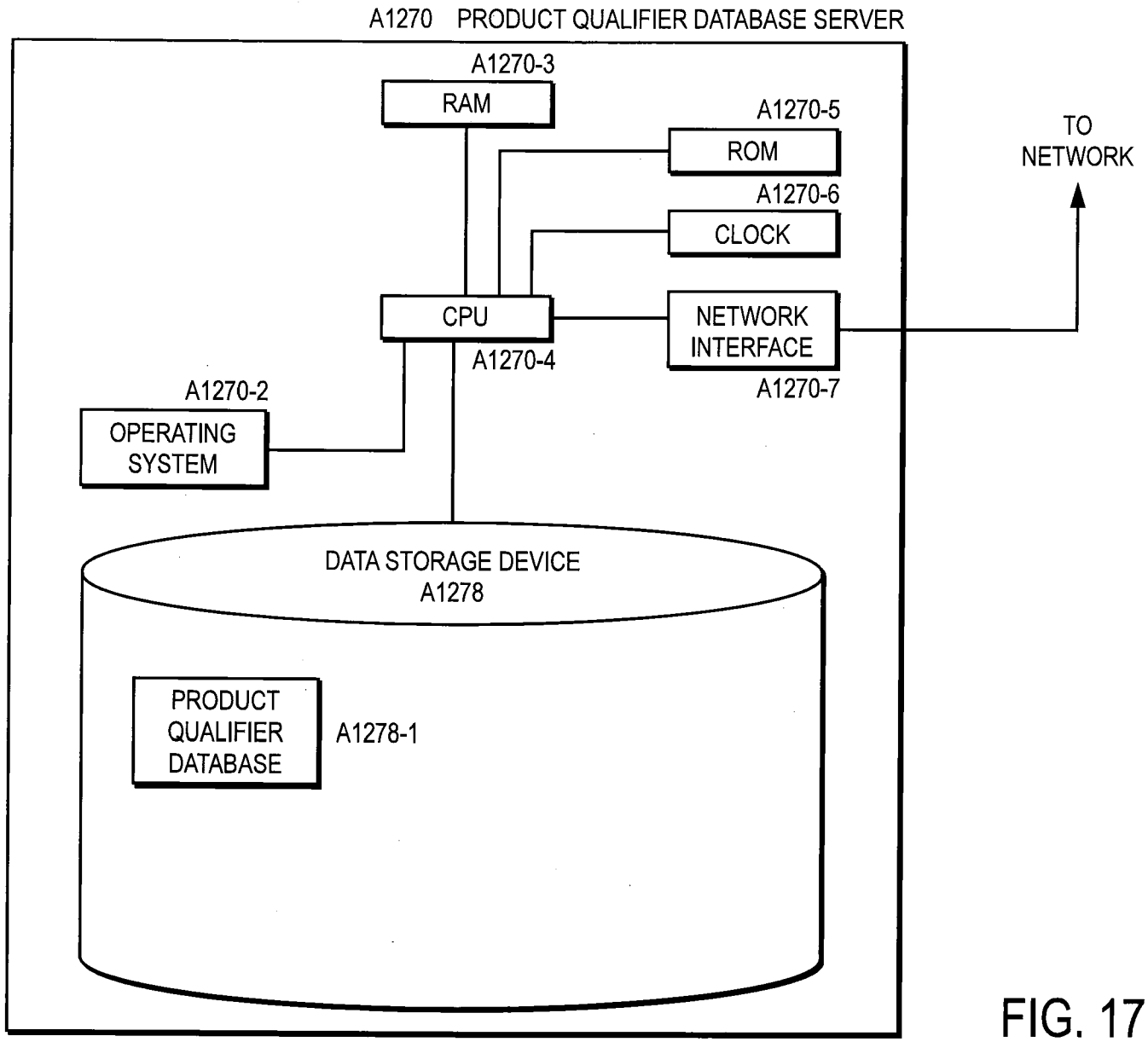

A1270 PRODUCT QUALIFIER DATABASE SERVER
A1270-3
RAM
A1270-5
ROM
A1270-6
CLOCK
CPU
A1270-4
NETWORK INTERFACE
A1270-7
TO NETWORK
A1270-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1278
PRODUCT QUALIFIER DATABASE
A1278-1

FIG. 17

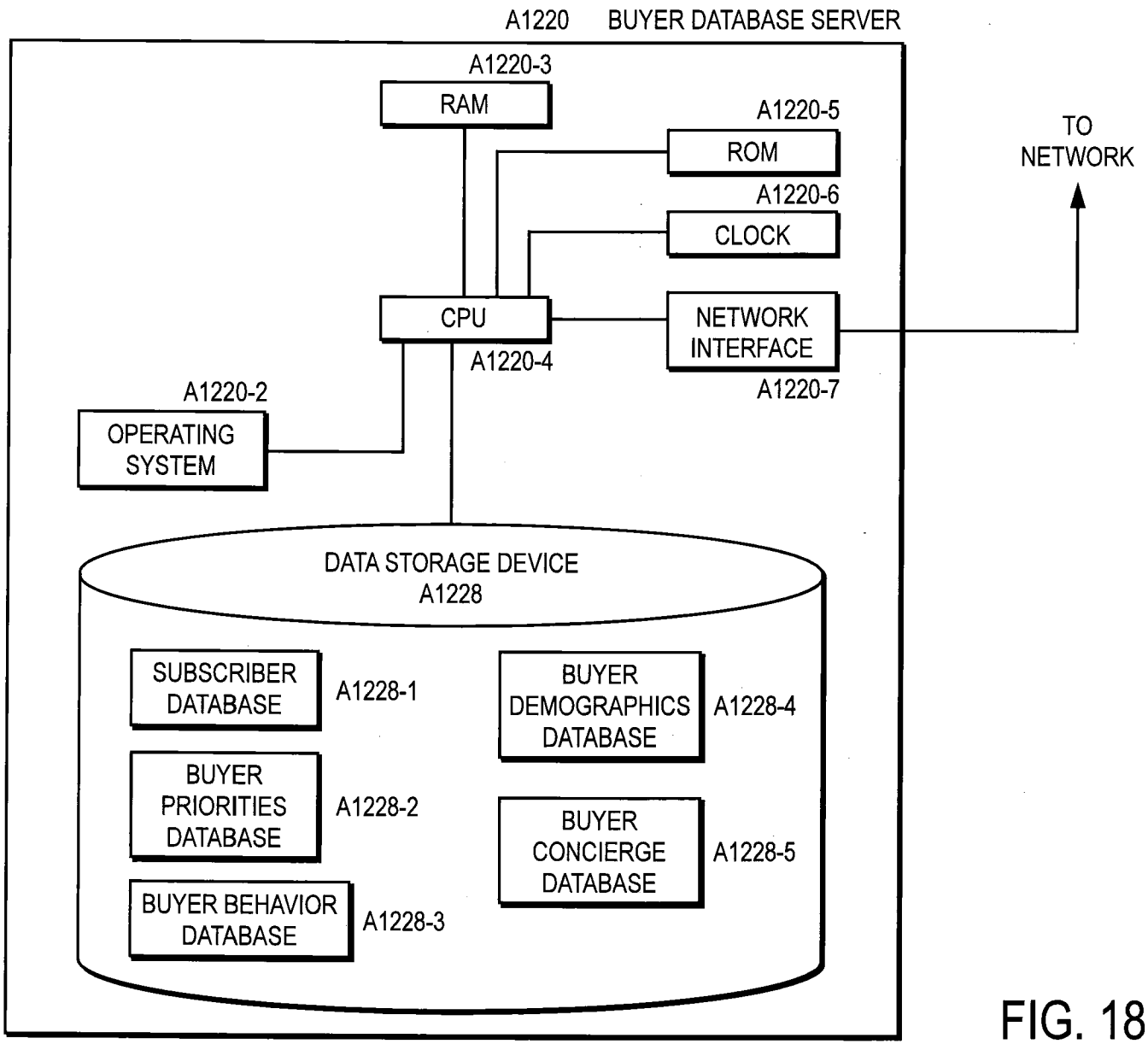

A1220 BUYER DATABASE SERVER
A1220-3
RAM
A1220-5
ROM
A1220-6
CLOCK
CPU
A1220-4
NETWORK INTERFACE
A1220-7
TO NETWORK
A1220-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1228
SUBSCRIBER DATABASE
A1228-1
BUYER PRIORITIES DATABASE
A1228-2
BUYER BEHAVIOR DATABASE
A1228-3
BUYER DEMOGRAPHICS DATABASE
A1228-4
BUYER CONCIERGE DATABASE
A1228-5

FIG. 18

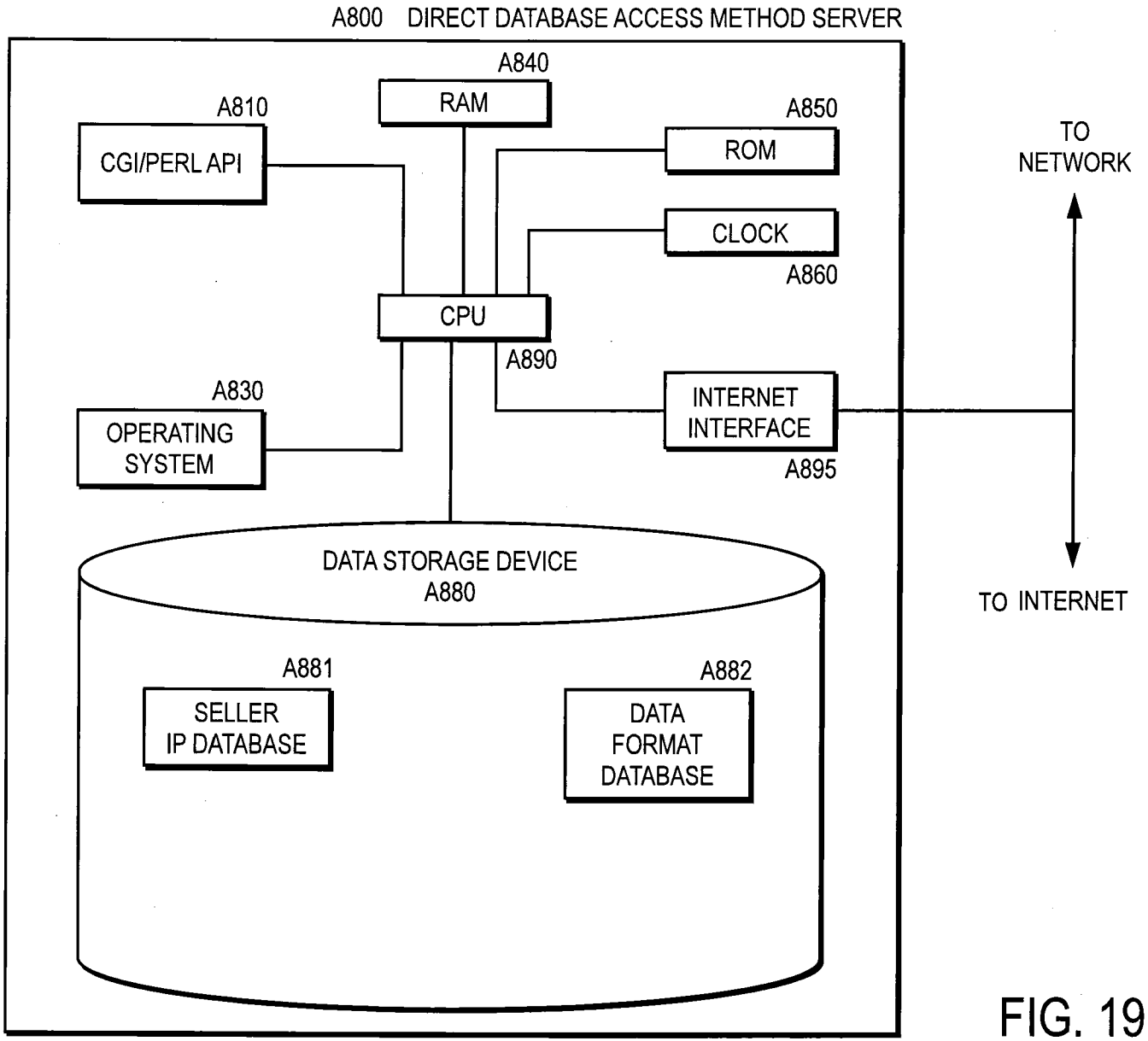

A800 DIRECT DATABASE ACCESS METHOD SERVER
A840
RAM
A810
CGI/PERL API
A850
ROM
CLOCK
A860
CPU
A890
A830
OPERATING SYSTEM
INTERNET INTERFACE
A895
TO NETWORK
TO INTERNET
DATA STORAGE DEVICE
A880
A881
SELLER IP DATABASE
A882
DATA FORMAT DATABASE

FIG. 19

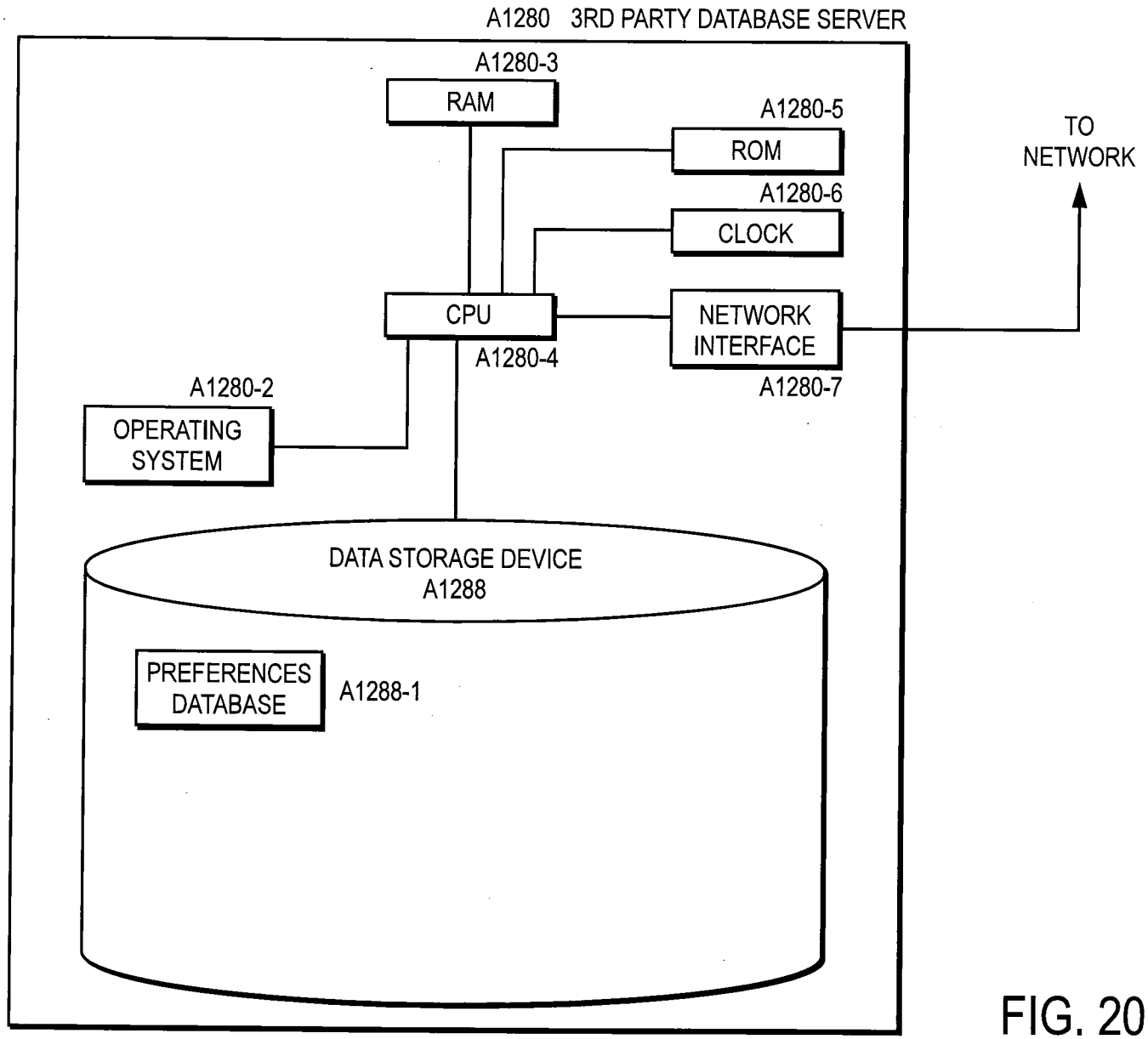

A1280 3RD PARTY DATABASE SERVER
A1280-3
RAM
A1280-5
ROM
A1280-6
CLOCK
CPU
A1280-4
NETWORK INTERFACE
A1280-7
TO NETWORK
A1280-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1288
PREFERENCES DATABASE
A1288-1

FIG. 20

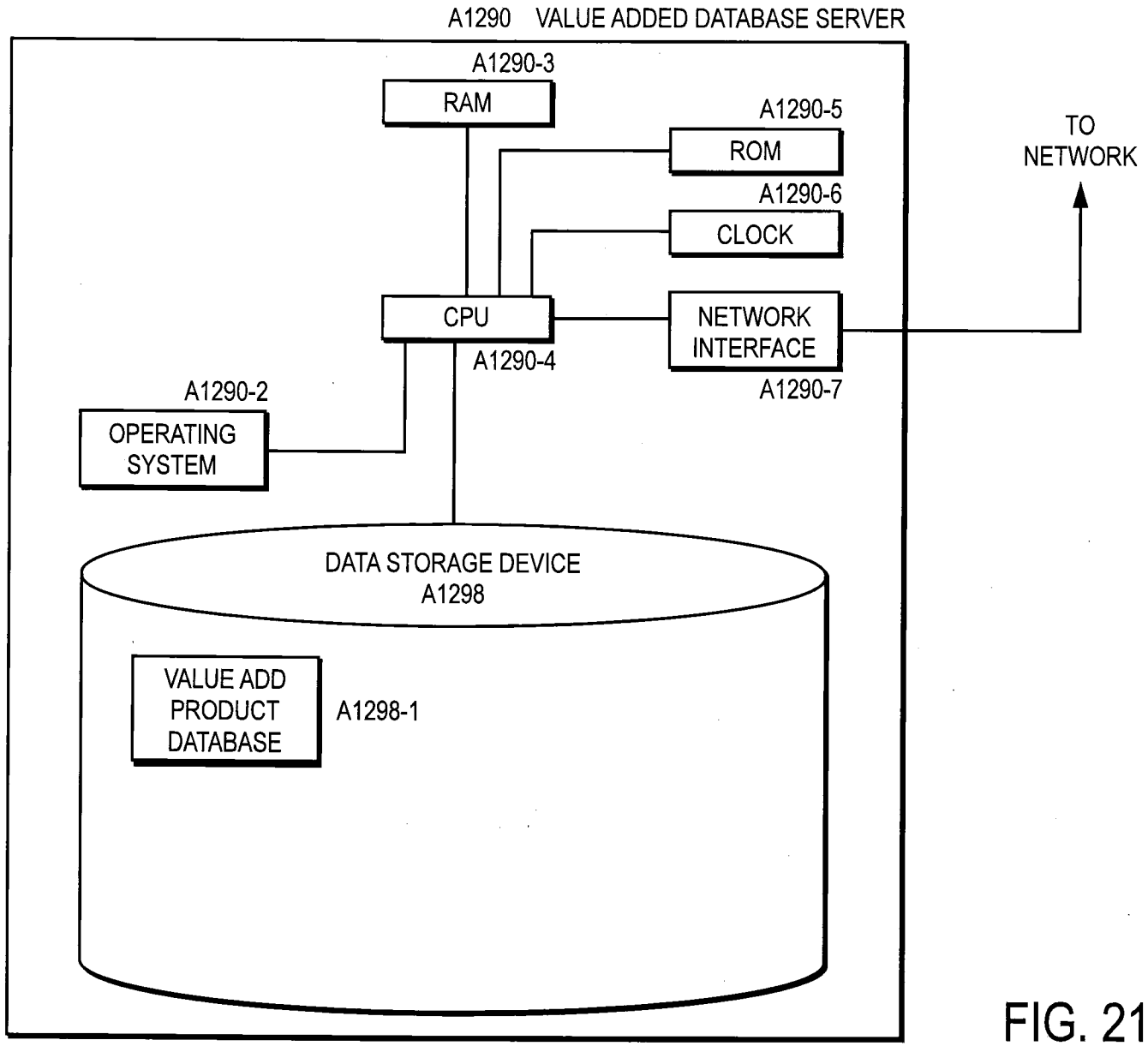

A1290 VALUE ADDED DATABASE SERVER
A1290-3
RAM
A1290-5
ROM
A1290-6
CLOCK
CPU
A1290-4
NETWORK INTERFACE
A1290-7
TO NETWORK
A1290-2
OPERATING SYSTEM
DATA STORAGE DEVICE
A1298
VALUE ADD PRODUCT DATABASE
A1298-1

FIG. 21

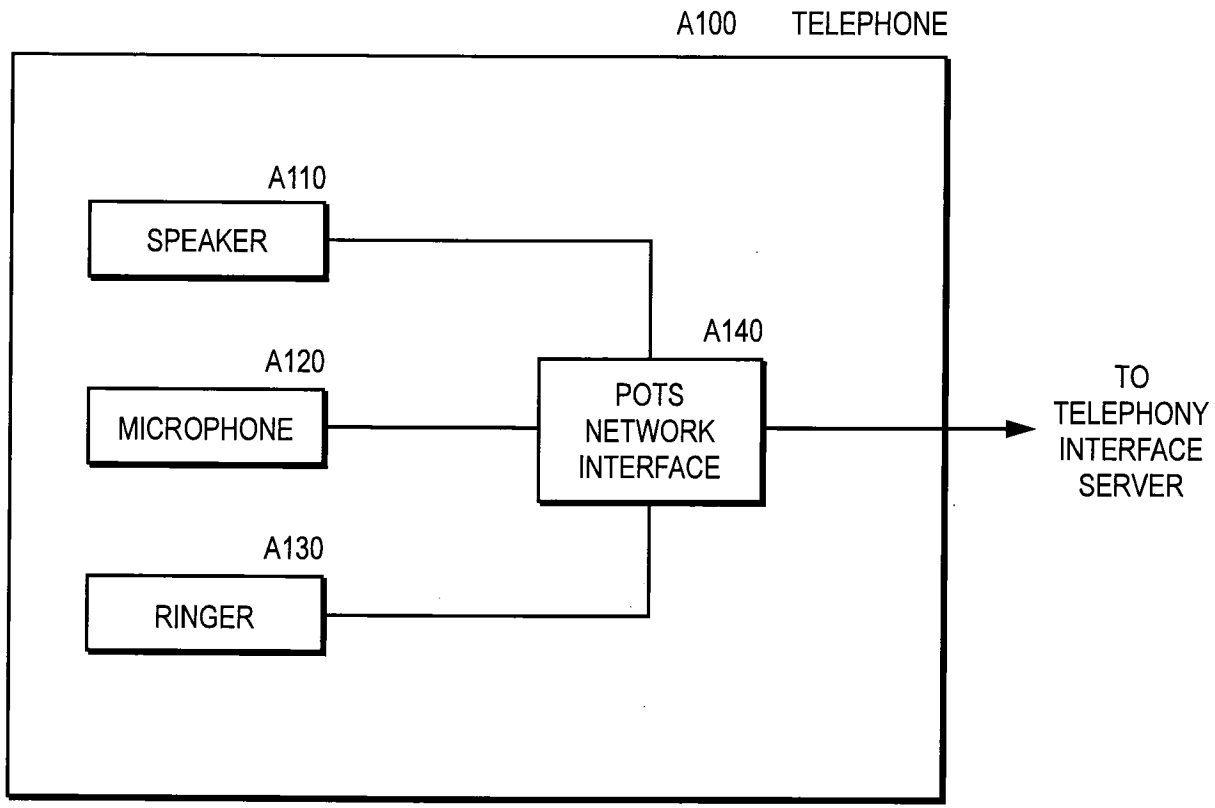

A100 TELEPHONE
A110
SPEAKER
A120
MICROPHONE
A130
RINGER
A140
POTS
NETWORK
INTERFACE
TO
TELEPHONY
INTERFACE
SERVER

FIG. 22

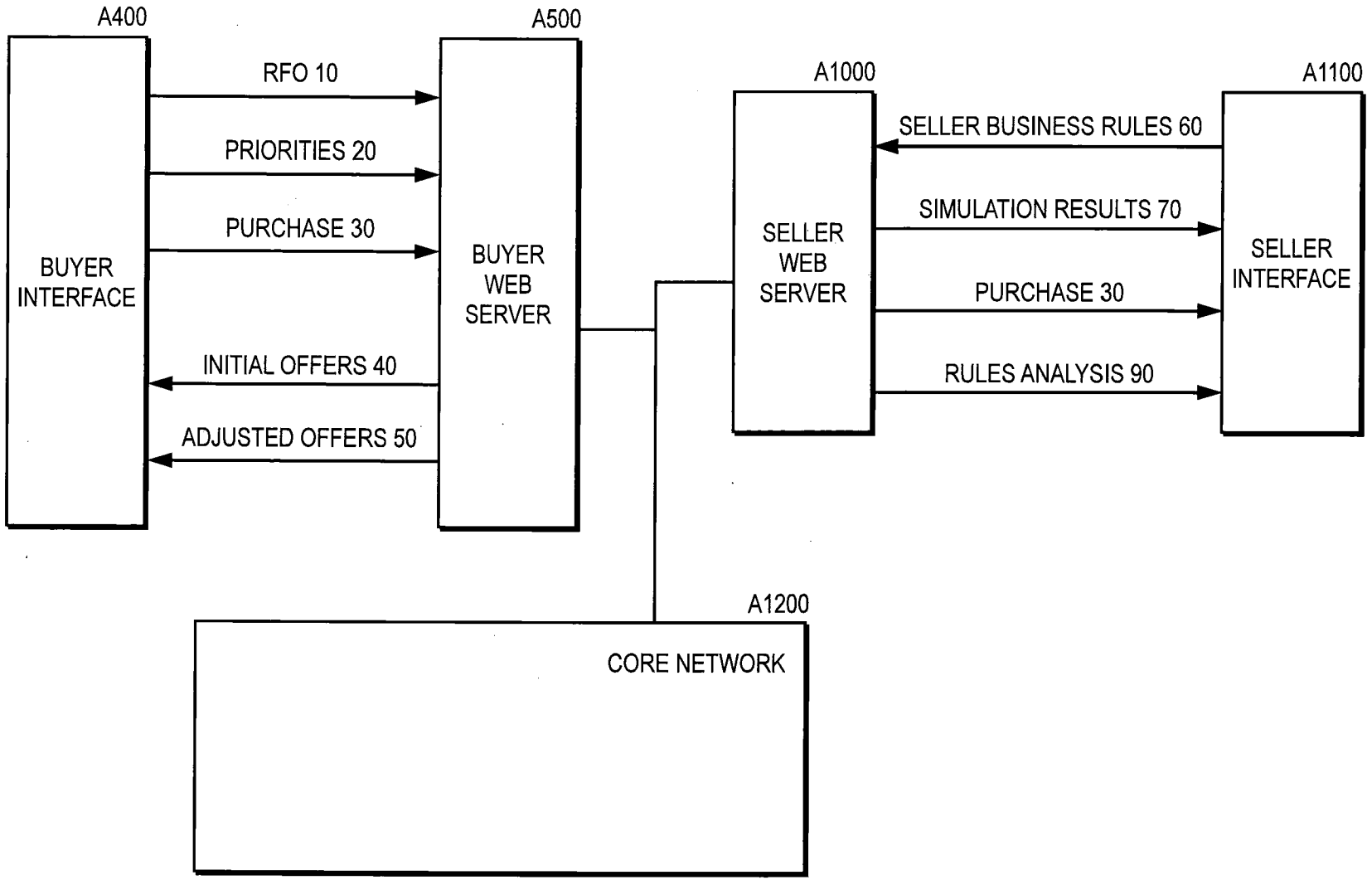

A400
BUYER INTERFACE
A500
BUYER WEB SERVER
RFO 10
PRIORITIES 20
PURCHASE 30
INITIAL OFFERS 40
ADJUSTED OFFERS 50
A1000
SELLER WEB SERVER
A1100
SELLER INTERFACE
SELLER BUSINESS RULES 60
SIMULATION RESULTS 70
PURCHASE 30
RULES ANALYSIS 90
A1200
CORE NETWORK

FIG. 23

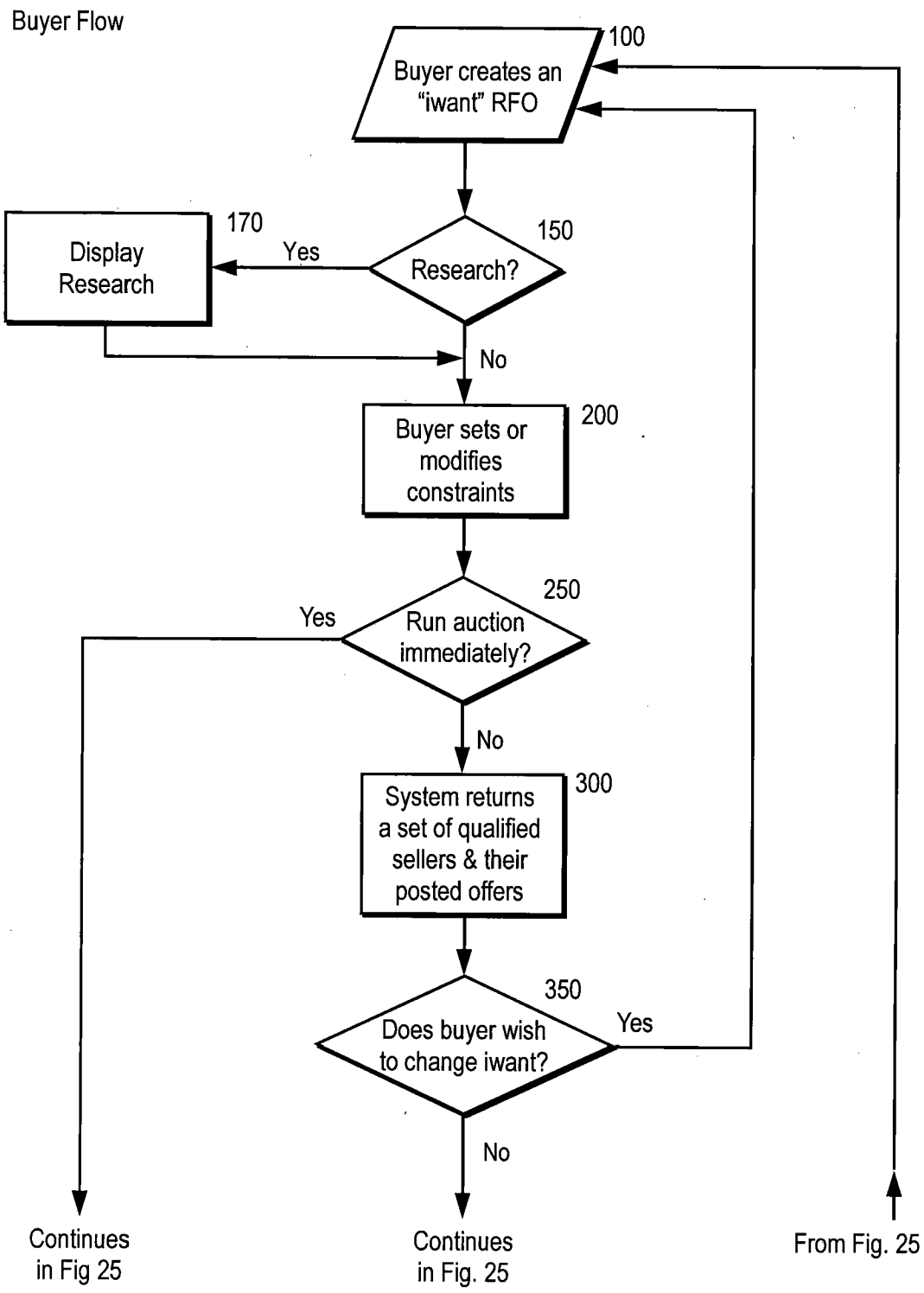

Buyer Flow
Buyer creates an "iwant" RFO
100
Research?
150
Yes
Display Research
170
No
Buyer sets or modifies constraints
200
Run auction immediately?
250
Yes
No
System returns a set of qualified sellers & their posted offers
300
Does buyer wish to change iwant?
350
Yes
No
Continues in Fig 25
Continues in Fig. 25
From Fig. 25

FIG. 24

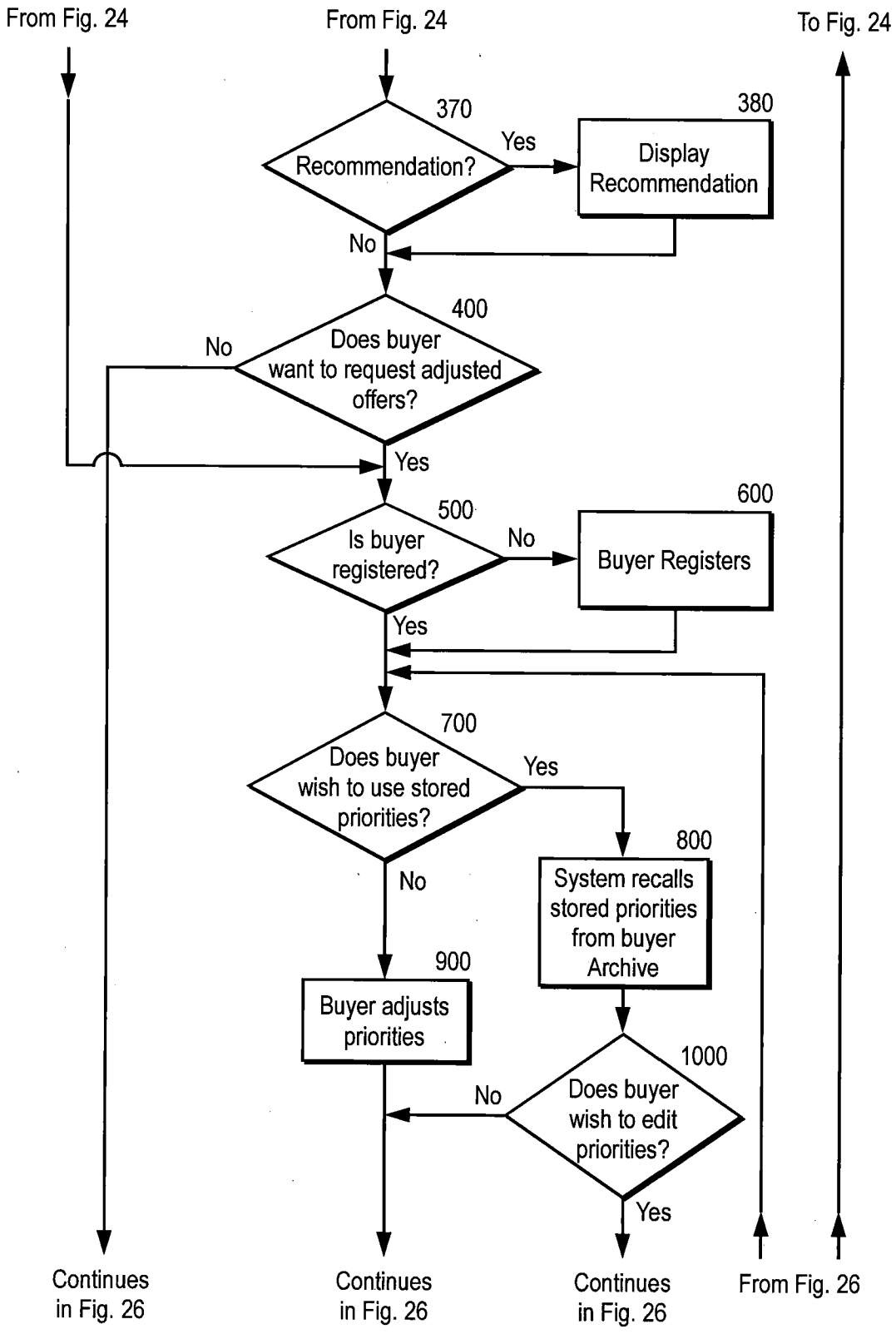

From Fig. 24
From Fig. 24
To Fig. 24
370
Recommendation?
Yes
380
Display Recommendation
No
400
Does buyer want to request adjusted offers?
No
Yes
500
Is buyer registered?
No
600
Buyer Registers
Yes
700
Does buyer wish to use stored priorities?
Yes
800
System recalls stored priorities from buyer Archive
No
900
Buyer adjusts priorities
1000
Does buyer wish to edit priorities?
No
Yes
Continues in Fig. 26
Continues in Fig. 26
Continues in Fig. 26
From Fig. 26

FIG. 25

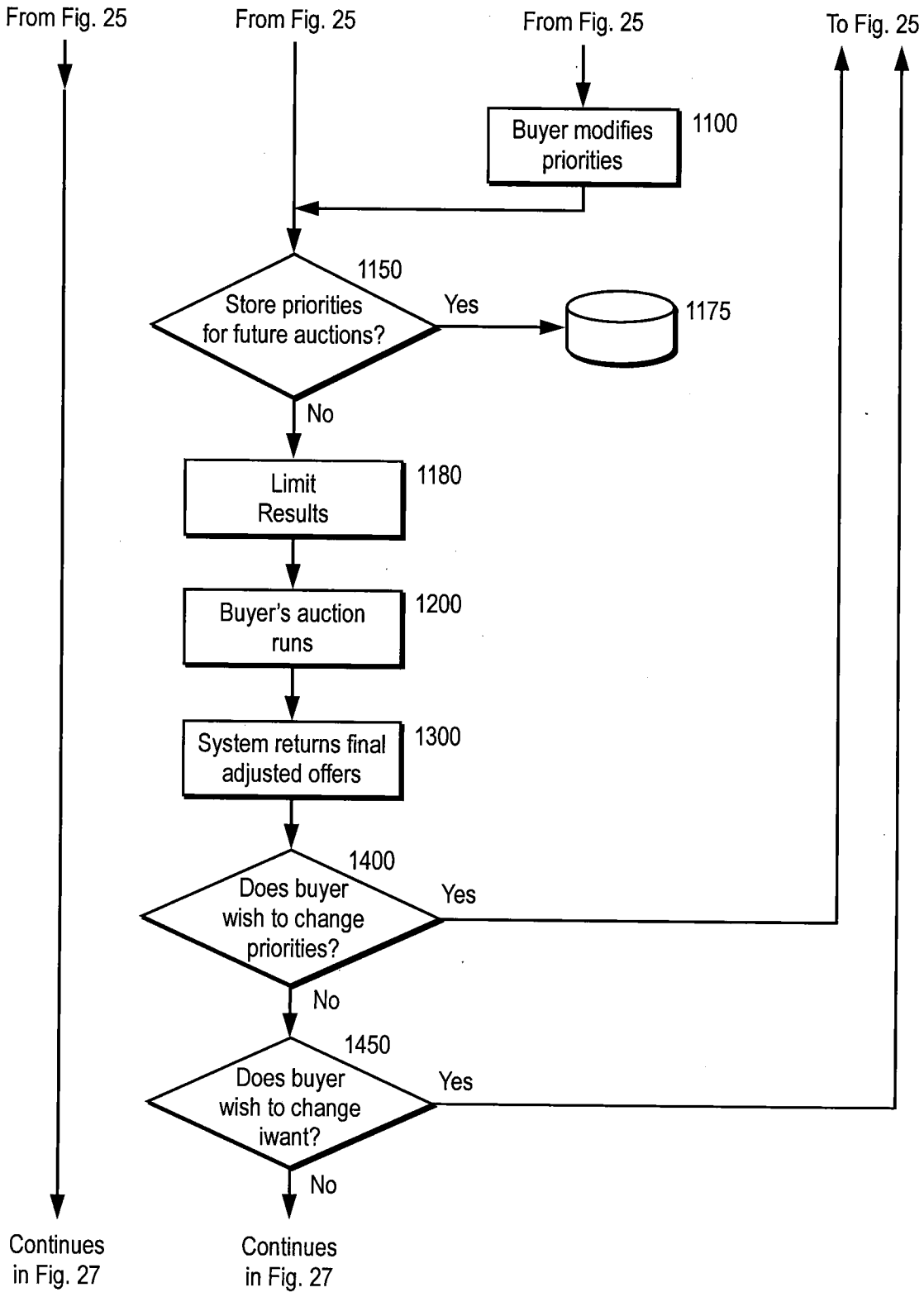

From Fig. 25
From Fig. 25
From Fig. 25
To Fig. 25
Buyer modifies priorities
1100
1150
Store priorities for future auctions?
Yes
1175
No
Limit Results
1180
Buyer's auction runs
1200
System returns final adjusted offers
1300
1400
Does buyer wish to change priorities?
Yes
No
1450
Does buyer wish to change iwant?
Yes
No
Continues in Fig. 27
Continues in Fig. 27

FIG. 26

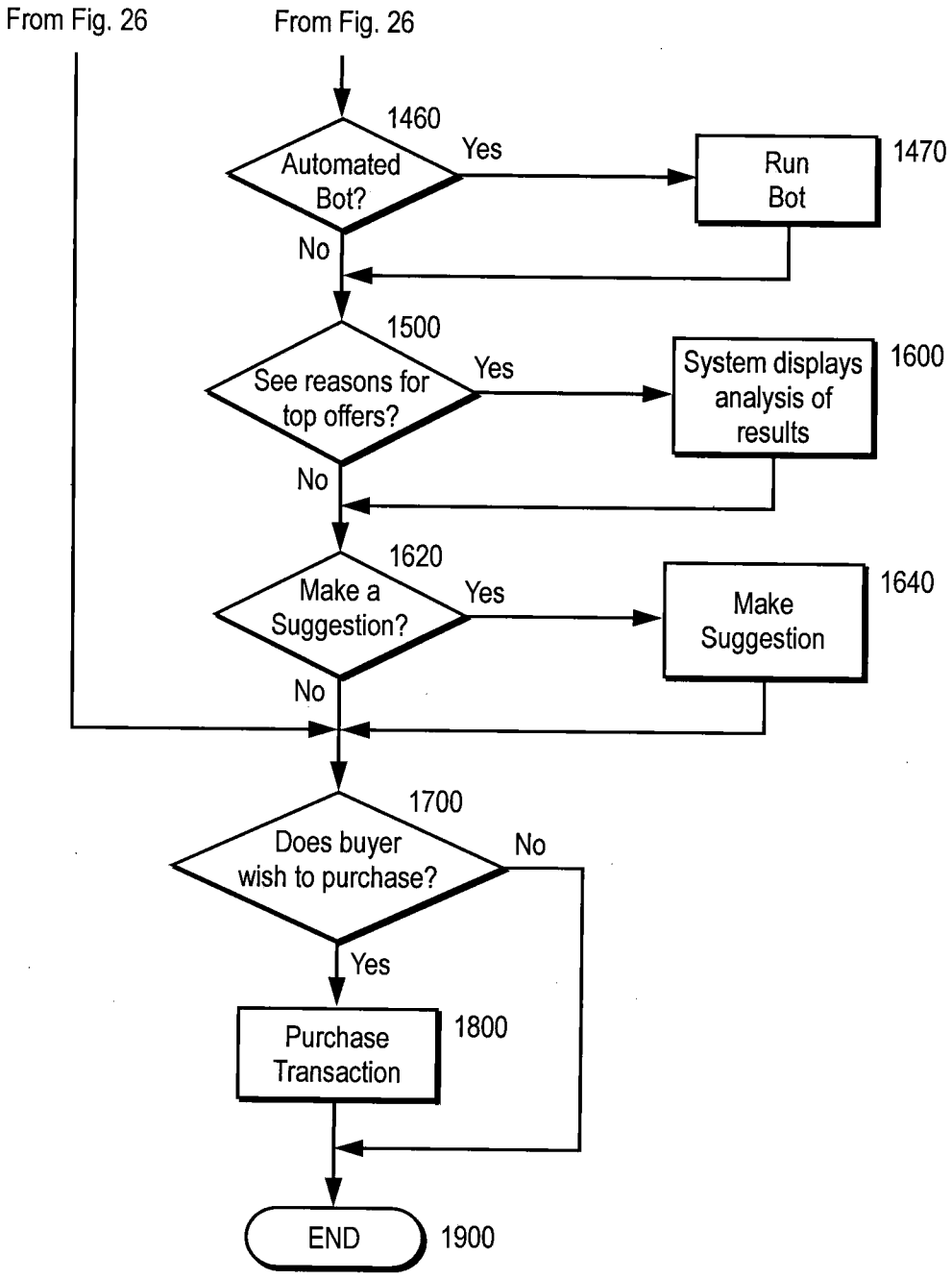

From Fig. 26
From Fig. 26
1460
Automated Bot?
Yes
Run Bot
1470
No
1500
See reasons for top offers?
Yes
System displays analysis of results
1600
No
1620
Make a Suggestion?
Yes
Make Suggestion
1640
No
1700
Does buyer wish to purchase?
No
Yes
Purchase Transaction
1800
END
1900

FIG. 27

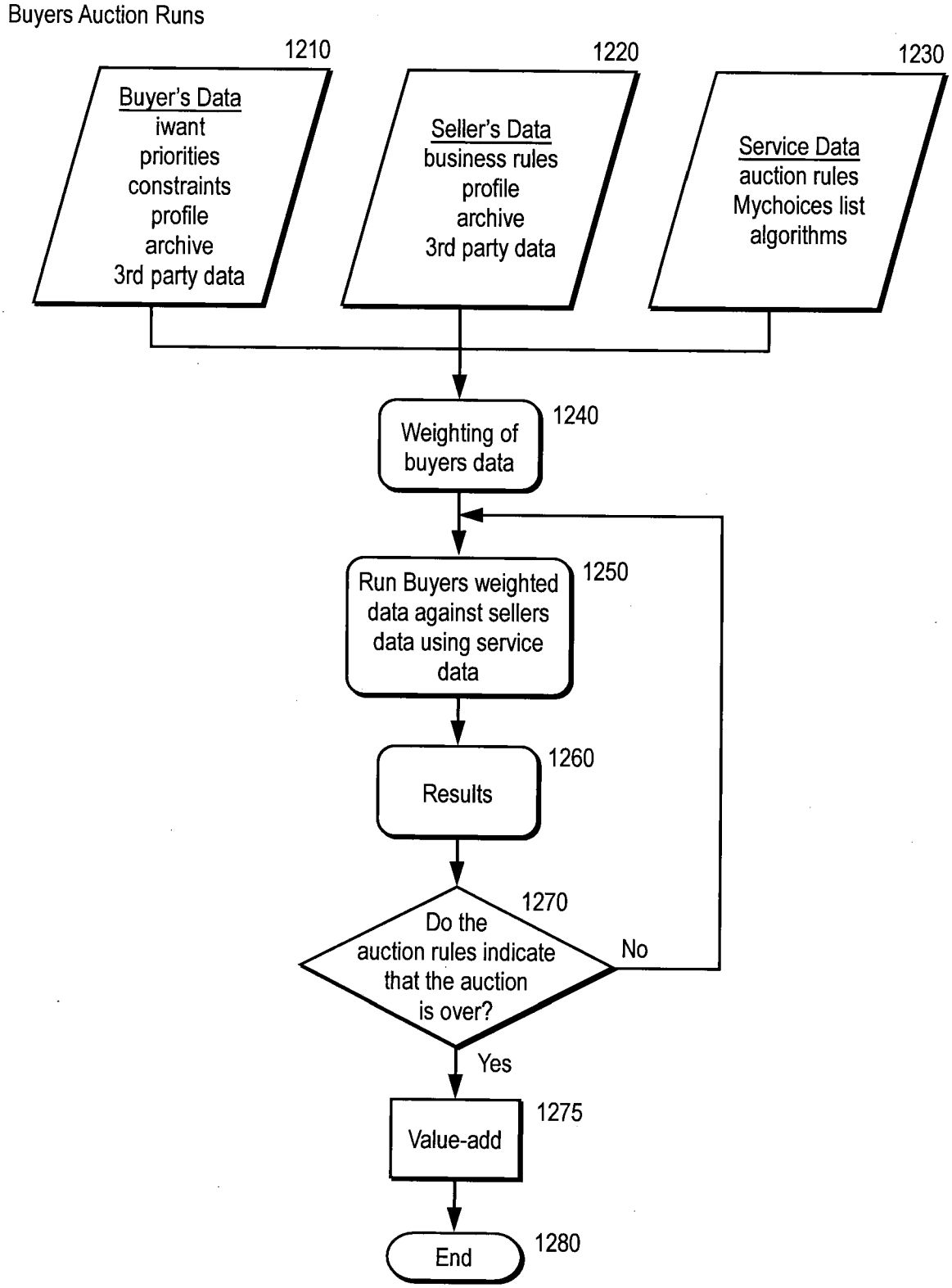

Buyers Auction Runs
1210
Buyer's Data
iwant
priorities
constraints
profile
archive
3rd party data
1220
Seller's Data
business rules
profile
archive
3rd party data
1230
Service Data
auction rules
Mychoices list
algorithms
Weighting of buyers data
1240
Run Buyers weighted data against sellers data using service data
1250
Results
1260
Do the auction rules indicate that the auction is over?
1270
No
Yes
Value-add
1275
End
1280

FIG. 28

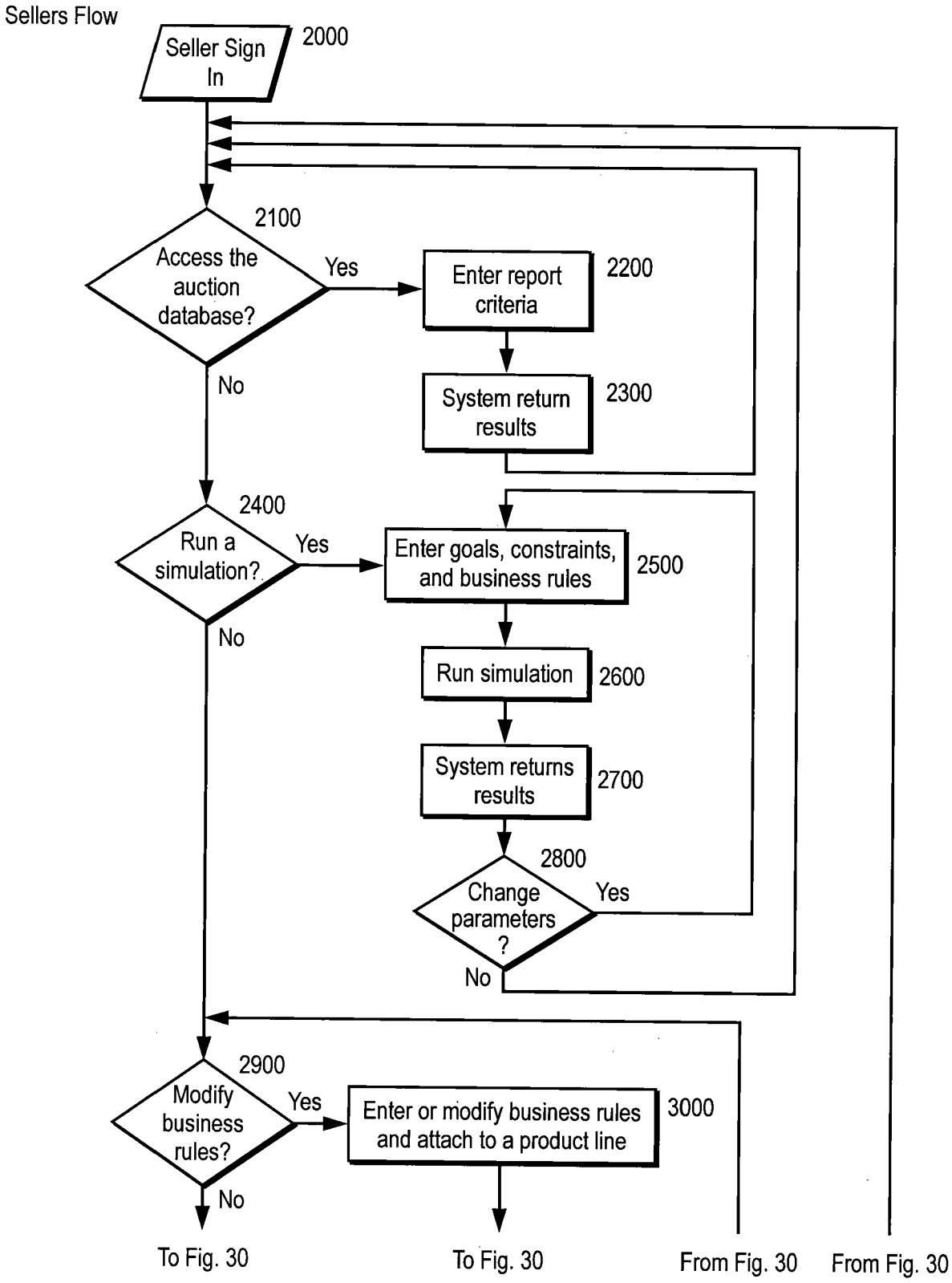

Sellers Flow
Seller Sign In
2000
2100
Access the auction database?
Yes
Enter report criteria
2200
No
System return results
2300
2400
Run a simulation?
Yes
Enter goals, constraints, and business rules
2500
No
Run simulation
2600
System returns results
2700
2800
Change parameters ?
Yes
No
2900
Modify business rules?
Yes
Enter or modify business rules and attach to a product line
3000
No
To Fig. 30
To Fig. 30
From Fig. 30
From Fig. 30

FIG. 29

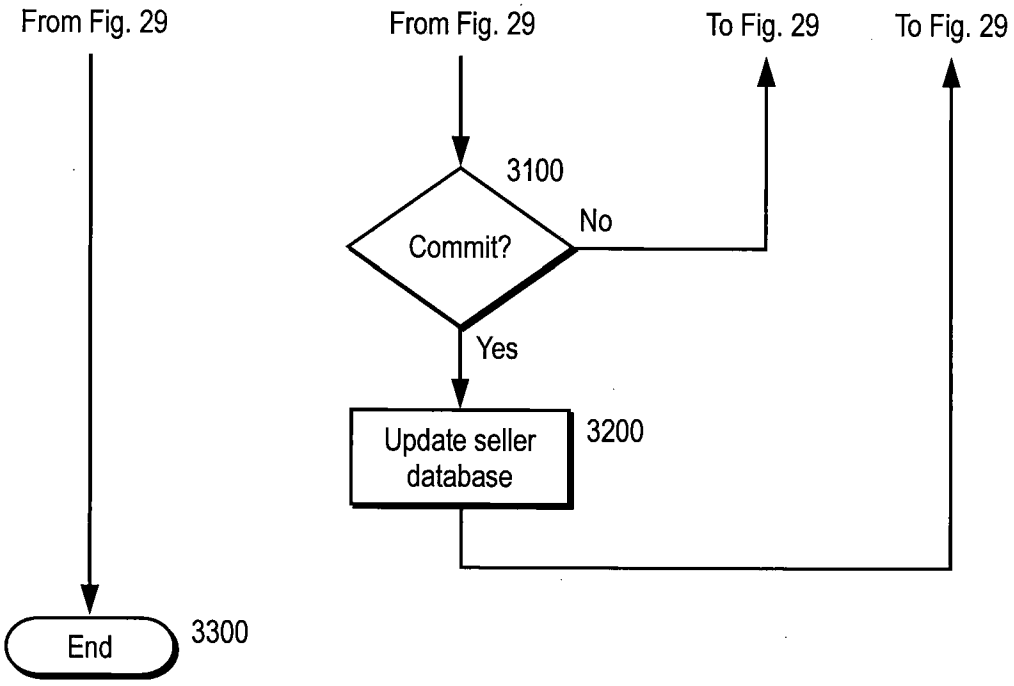
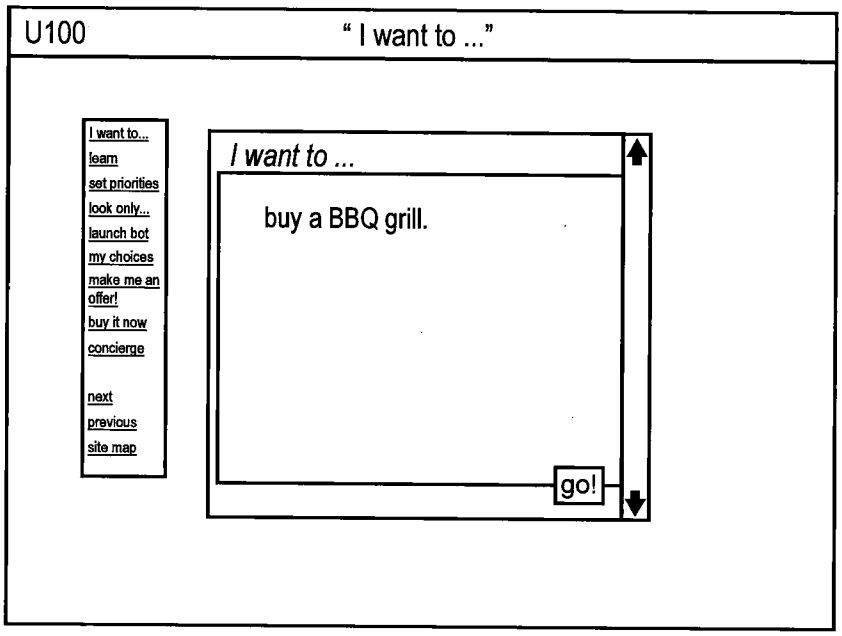

From Fig. 29
From Fig. 29
To Fig. 29
To Fig. 29
3100
Commit?
No
Yes
Update seller database
3200
End
3300

FIG. 30



- The buyer perceives a need or a want for some goods or services. If the buyer could state her goals, she would say: I want to buy a (good or service), see all my choices, find the best value, ask for and receive personalized offers, enjoy the experience and not waste time or energy. The definition of a "buyer" includes: 1) a person; 2) a group of people; 3) a company; 4) a software process(bot); or 5) a buying group.

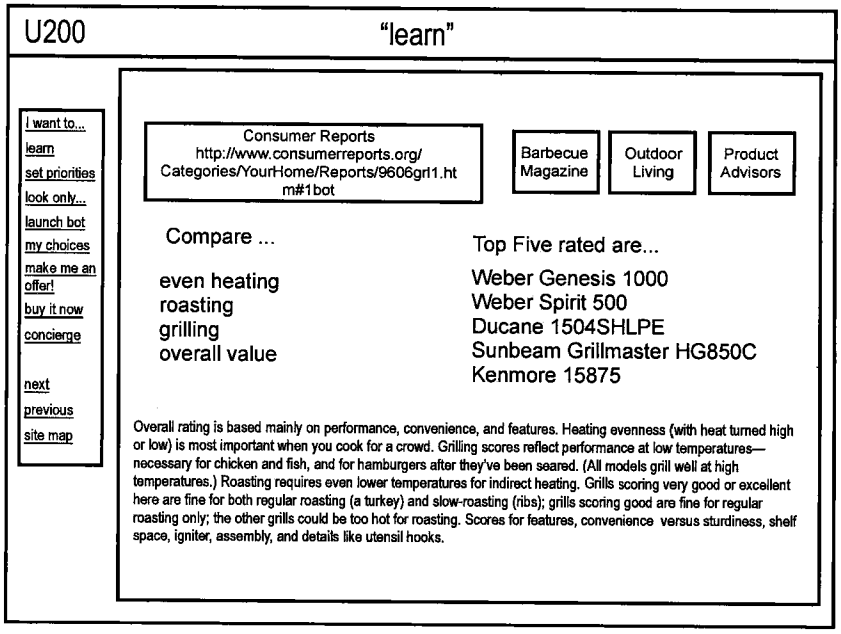
- The inquiry can be stated in natural language or using more structured form, such as pull-down menus. Data entry can be via almost any method, including keyboard or voice. The natural language user interface (UI) allows the buyer to use words and phrases in free-form manner. A semantic parser operates on the inquiry. This method - as compared to normal keyword search, pattern recognition and statistical inference - is extremely accurate and returns high relevance answers.

- The home page could be simple or it can contain various functions, e.g., (1) The buyer can learn about the market ("learn"); (2) she can set her goals or preferences ("set priorities"); (3) she can set constraints on the search ("look only"); (4) she can access her archive ("concierge"). His home page framework is extensible.

- This "i want to..." model can be extended to include business-to-business (B2B) applications; low end products, high end products; low end services and high end services. It can also be used to look for bundles of goods and services and consignment models.

- The standard navigation bar(vertical, left element) includes short-cuts for the buyer. An experienced "power user" might choose to go directly from an "i want" to "make me an offer." A less experienced buyer, or even an experienced buyer attempting to purchase something in a category new to her, might traverse the experience more methodically. In the latter case, a buyer might do the research, set the priorities, constrain her search, see her choices, and then decide to re-frame the "i want" entirely. This ability to iterate and cycle at will -- without being forced to do so -- allows each buyer to tailor the "i want" experience to their state of readiness to buy. The system allows each buyer to raise their own objections and then take whatever steps are necessary to consummate a transaction.

FIG. 31



- The service attacks five types of cost: (1) market intelligence; (2) search; (3) bargaining; (4) execution; and (5) integration. This screen shows one solution for attacking cost #1 - market intelligence.

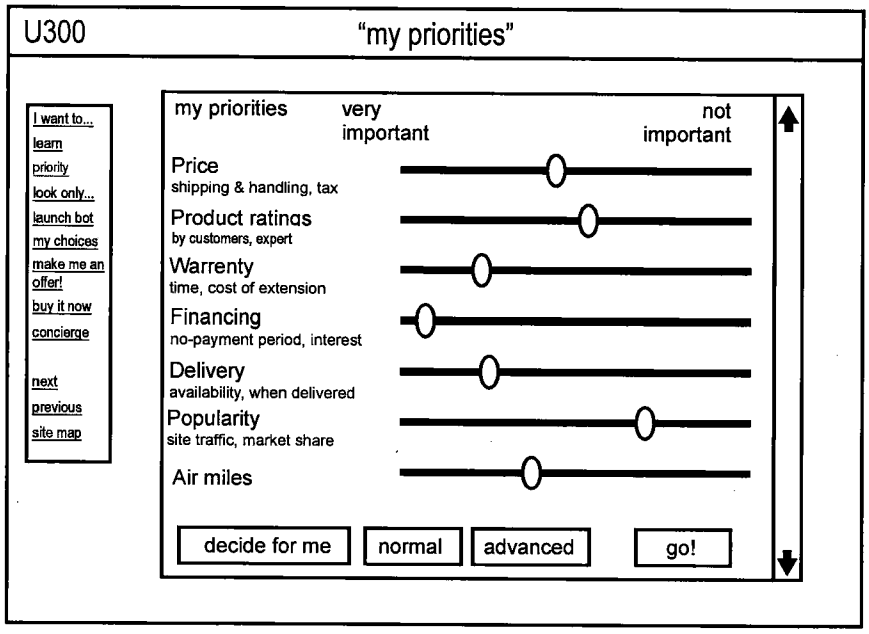
- If the buyer asks for research and advice, in this embodiment she receives a summary of the key features and a recommendation of the top five rated products from a rating service (e.g., Consumer Reports). For deeper research a convenient one-button URL takes her directly to a page that contains a summary of all the product categories in Consumer Reports. A cookie brings her right back again.

- She can also access other sources of advice and product ratings, in this case three magazines. Many other sources of product and survey reviews can be used, including Guides.

- Initially, each data source will be accessed individually (as above). Over time, the various data sources can be merged into one master database by the iwanto.com editorial staff. Aggregating data is a convenience to the buyer.

- This research and advice framework ("learn") is extensible. As new sources of expertise , data and advice become available electronically, they can be integrated into this framework.

FIG. 32



- A buyer's decision is influenced by many variables. Using this interface, the buyer is able to express what is important to her – the trade-offs that she implicitly makes in effecting a purchase. The "my priorities" tool helps her articulate those goals, and their relative importance, using an "analog" interface such as sliders. An algorithm running under this model assigns different weightings to each variables. Those weighting factors can be weighted: (1) solely by the buyer's settings, i.e. deterministic; (2) and/or a weighted average of the buyer's ratings an the ratings of a peer group; or (3) by the weightings of a demographic model derived from large-scale anonymous consumer databases that identify large-sample preferences.

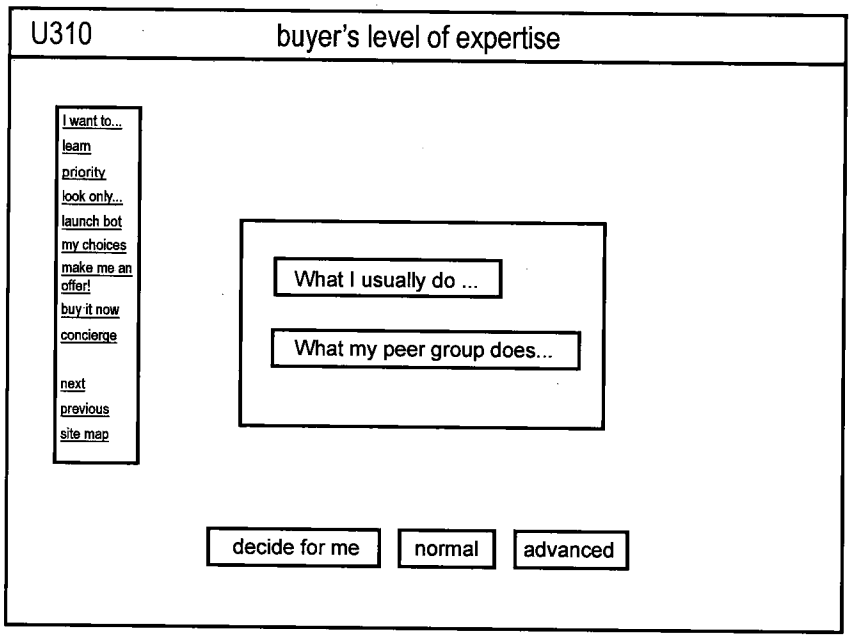
- The buyer has a choice of creating her "my priorities" one time (global); or tuning it differently for each inquiry; or 3) tuning it at anytime during a Round. The buyer also has a choice of touching a default button ("use standard settings") that defaults into them (2) or (3) above.

- The buyer can have a choice of settings for how much automation is provided by the system. The simplest form "decide for me", lets the system set all defaults based on its archival information; the next level, "normal". presents a simple, minimal set of choices for the buyer. The top level, "advanced", lets the buyer carefully constrain the "iwanto" experience.

- This framework for setting buyer preferences, goals and priorities and the tradeoffs between them is fully extensible. In the future, other interesting methods of expressing tradeoffs can be implemented.

- In this illustration, the buyer for this specific round is interested in financing, extended warranty, fast delivery and air miles. She is not as concerned about price, site popularity or product rating. The same buyer might try any number of preferences until she converges on (understands and accepts) her utility function.

FIG. 33



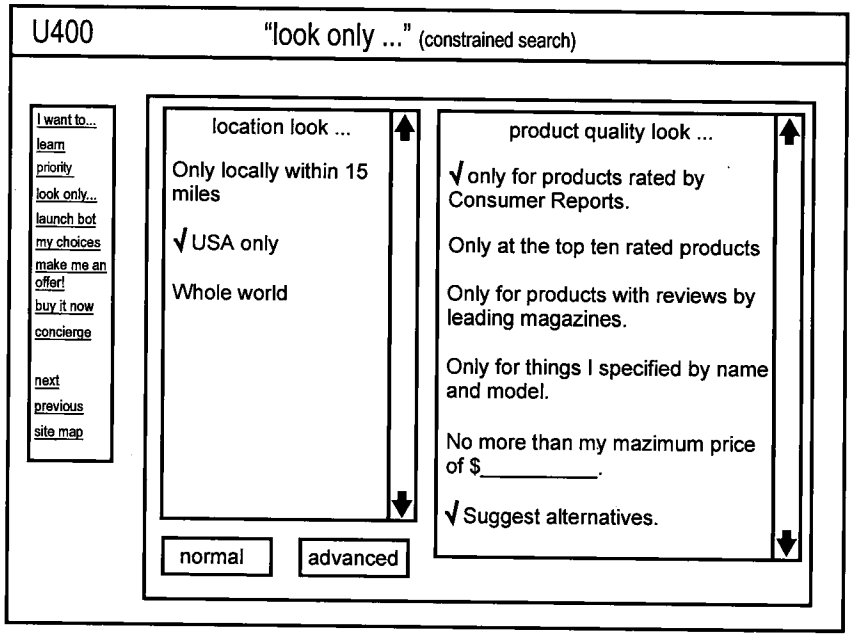
- This is an illustration of the simplest level, "decide for me". The buyer might be uncertain of her priorities. The service provides several assistants:

- Do what I usually do, not necessarily what I say. Based on recent buying behavior, the buyer might believe that she is price conscious, but in fact is more sensitive to changes in financing or warranty. This button "snaps" the settings to reflect her actual behavior.

- Do what my peer group does. The service has a filter to "snap" the buyer's settings to the median of her peer group. The definition of a peer group could be macro (large number population) or specific, e.g., people who live in one city, or people who pursue a combination of one sport (skiing) and are also single and also have graduated college.

- This framework for using system-set defaults is fully extensible. Underlying each level is an algorithm, which can be simple (linear) to complex (quadratic, or even based on a linear optimization model). New algorithms for setting user defaults can be introduced at any time.

FIG. 34

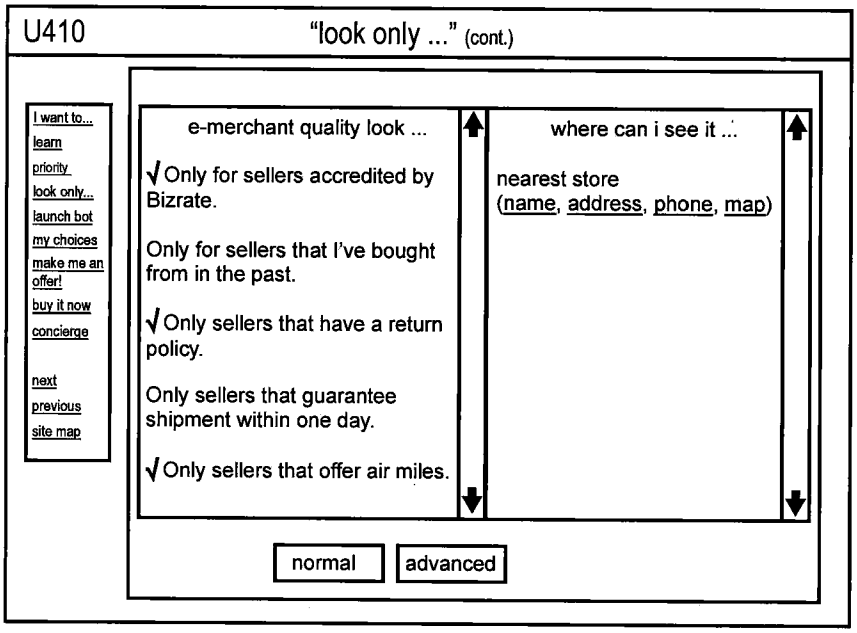


- This is an illustration of the "advanced" setting. "Look" is an extensible framework. It delimits the search in any number of interesting ways. For example, the buyer can decide how broadly she wants to look for sellers. If the buyer intends to visit a real store to see the product before purchase, she can ask for "local" only, or within X miles; or by state or region; or worldwide.

- Other choices for constrained searches are also possible. For illustration: (1) only my "favorite" merchants; (2) only products that are rated by Consumer's Reports, etc. The easiest choices are within a few miles of home (80% of all purchases). The "USA" option can be aware of shipping costs and set to take advantage of no sales taxes in certain states. Or, the buyer can constrain the search to only those products reviewed by an expert (e.g., a leading magazine, an authoritative person, a peer group evaluation). Or, the buyer can constrain the search to certain product characteristics, e.g., a price range.

- Further the buyer can ask for product suggestions and alternatives. This presents significant upsell opportunities to sellers. The service is different than price comparison services because it diminishes the emphasis on direct price competition. Instead, it focuses the dialogue between buyer and seller on the qualitative aspects of the transaction.

FIG. 35



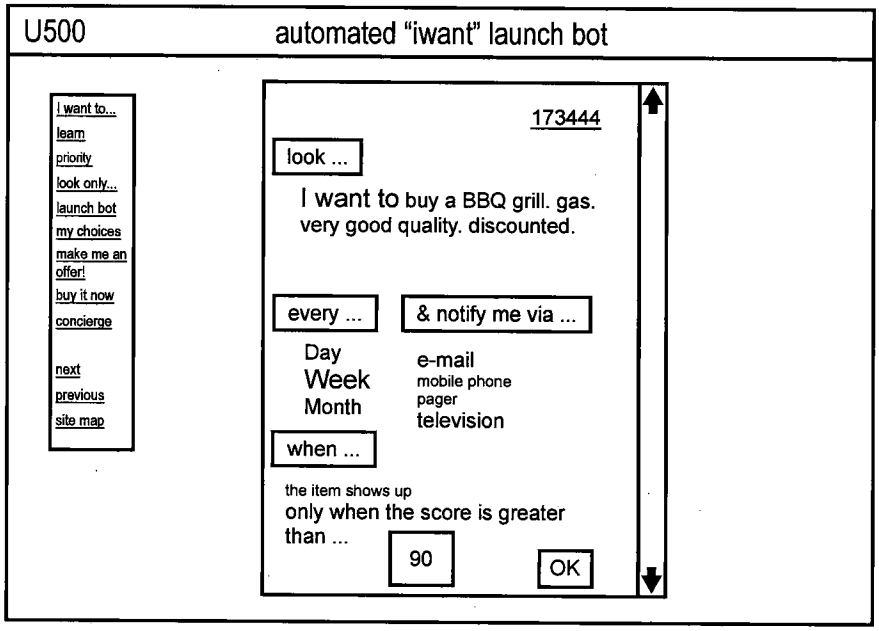
- This is a continuation of the "advanced" setting.

- In addition to product quality, the buyer can also constrain or limit searches based on e-merchant quality. For illustration: (1) only sellers that are familiar to the buyer, (2) only sellers rated by an independent rating service; (3) only sellers with certain performance guarantees, e.g., delivery time; or (4) only sellers that offer certain bonuses, e.g., air miles.

- Other buyer requirements will emerge over time. One illustration of a potentially popular element for product purchases is "where" can I see it ...?" In this illustration, the buyer can ask for the name of the nearest store (e.g., identified by the manufacturer's database), and directory information (address, phone), and a map with driving directions (e.g., MapQuest).

- This framework of constrained search is fully extensible. As the number of e-sellers multiples - possible by 100X per category in the next 10 years - constraining search in a meaningful and relevant fashion will become ever more important. As new dimensions of constrained search become important (e.g., security and privacy considerations, trusted third party issues, availability of video demos, etc.) such constraints can be added to this framework.

FIG. 36



- The buyer can create an automated "i want" bot that launches itself at a designated time period, e.g., every Tuesday, once a month, one week before a birthday or anniversary date. The bot also receives notification instructions when it receives an offer that passes certain criteria, e.g., total score of 90+.

- The notification preferences are expandable as new forms of intelligent devices connect to the web.

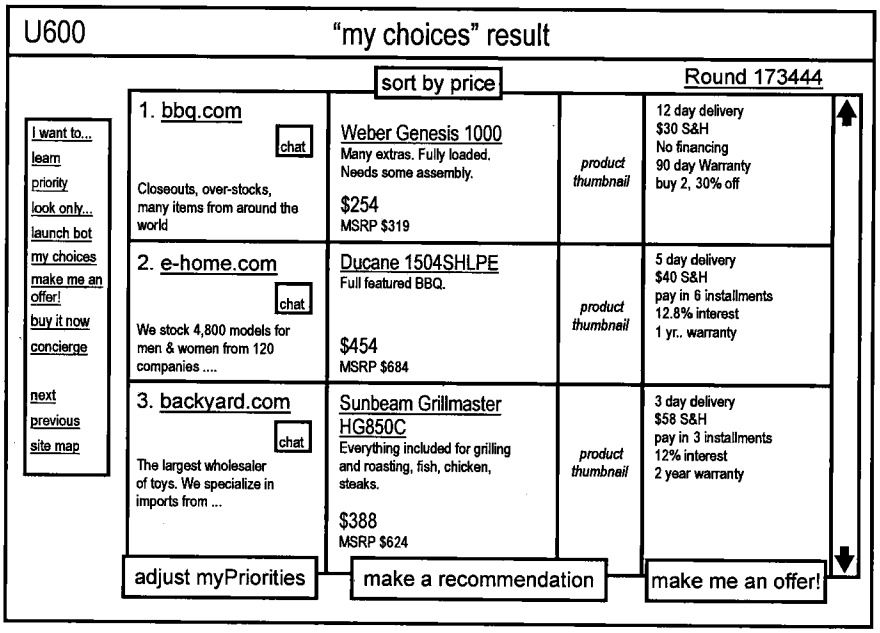
- The preference data can be kept in the Concierge and can be changed at any time.

- The service can support an unlimited number of automated bots on behalf of the buyer. It is possible to arrange the technology whereby the bots can work independently or they can work in a coordinated fashion, e.g., assembling a complex vacation package that includes a hotel, airfare, car rental, trip insurance etc.

- A "chat" button can also be added. This button can launch a variety of chat services, either resident inside iwanto.com or at the seller's site. The simplest form is a 1:1 text and/or voice chat with the seller's sales representative. Other varieties include text and/or voice chat with anybody who happens to be interested in BBQs at that moment (a synthetic group). Or an expert (consultant, advisor, guide). Or a user group. Text chat is now being augmented with voice chat. Video chat can also be integrated into the framework.

- This framework of creating, launching and managing a buyer's bot is fully extensible.

FIG. 37



- When the buyer touches the "go" button, the natural language inquiry ("i want to...") coupled with the decision criteria (my priorities) are launched against a database of e-merchant goods and services. This database can either be pre-compiled; or compiled on the fly; or a combination of the two.

- The search bot assembles all the high-relevance offers in a consistent manner, corresponding as closely as possible to the standard decision criteria as seen in the myPriority tool. The offers can be sorted by any arbitrary field, such as name of seller, asking price, or any of the priorities. In this illustration, the buyer sorted by posted prices. bbq.com sorted into the #1 position.

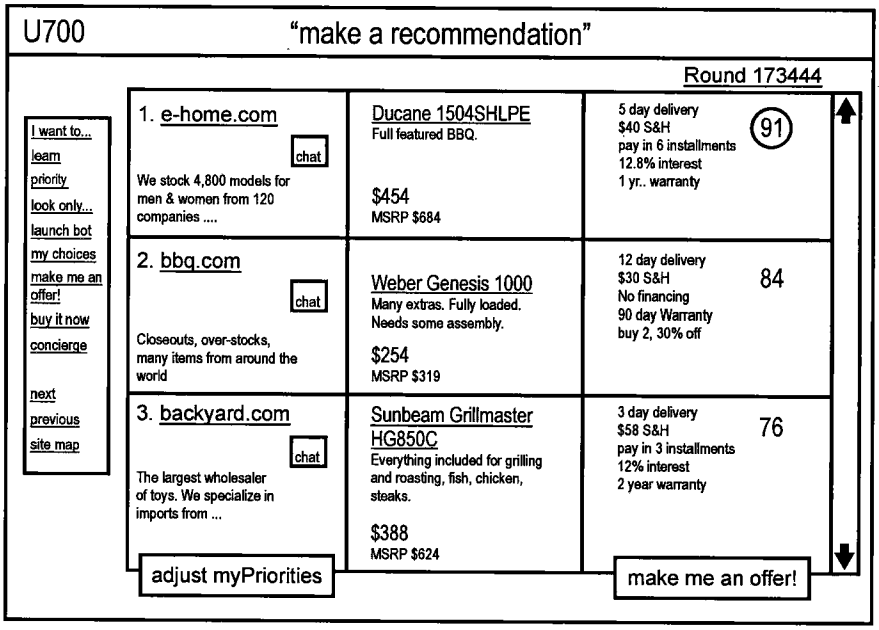
- It is expected that many sources of date can be aggregated into the "my choices" reporting framework. It is therefore fully extensible, adding new features and functionality supported by third party providers of relevant market data that can be integrated into "my choices".

- The buyer can delimit the results that are displayed by top 100 (or any number); highest score from the recommended; or by any of the criteria, such as delivery time or warranty.

- The "my choices" answers are all pre-adjustment. They are exactly as would be found on the seller's web-sites by any buyer or seller. The answers can be pre-filtered to remove offers which are clearly not going to be relevant or are purposefully misleading. This pre-filtering uses the "my priorities" criteria module.

- The buyer can also launch the "make a recommendation" function. The recommendation engine uses the "my priorities" weights and analyzes all the data in "my choices".

FIG. 38



- A summary "value score" can be displayed that summarizes relevancy. The value score is created by an algorithm that weights the buyer's utility function in a unique manner (via policy) and matches it against the market choices. The score serves as a recommendation. In this illustration, the seller's offers are rank-ordered by Score and displayed in sequence. Notice that the fictitious company "e-home" seems to be the most relevant and delivers the highest value.

- The resulting recommendation can include side-by-side comparisons of features. In this illustration, the Recommender gave e-home the #1 position, with a value score of 91. Note that the bbq.com offer (lowest price in "my choices") dropped from #1 into the #2 position.

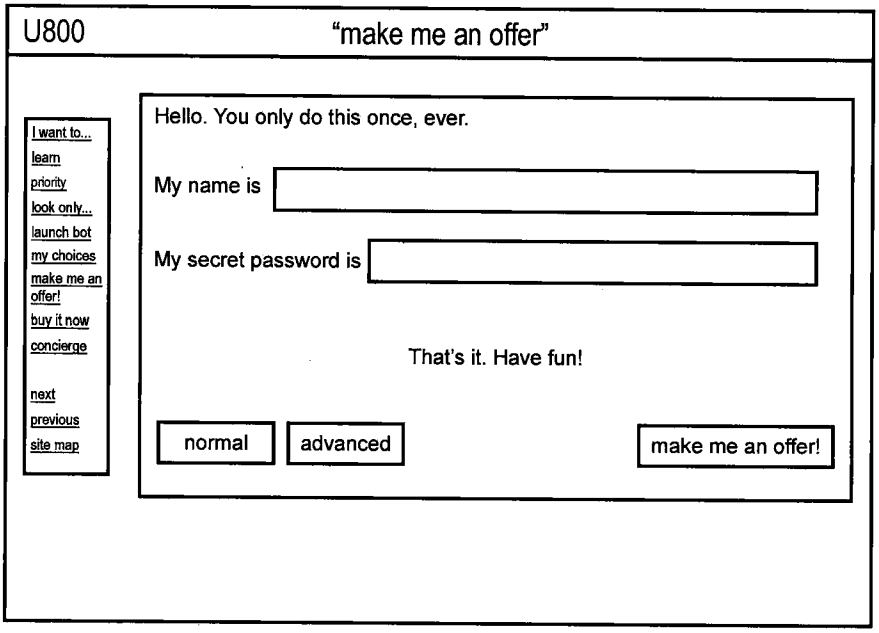
- An exclusion filter can also be applied to the database. The exclusion filter removes all offers which are non-qualifying for any number of reasons, some decided by the buyer, some decided by the "my choices" server. For illustration, a buyer may have had a bad experience with a vender, or a rating service may have given en e-merchant a bad rating; or the e-merchant is known to be using misleading information in their offers.

- The buyer has an option - as she does on almost all screens - to cycle back to the beginning and re-order her priorities, run the "my choices" again, and see if the resulting evaluation and recommendation has changed in an interesting manner. In this manner, the buyer is simulating her utility function - trying out different combinations that intuitively match her mental image of what is important to her. In the beginning, gross adjustments of her priorities may produce gross changes in the value score. As she converges on her priorities, the adjustments are expected to become finer and the value score more stable.

- Experienced buyers (within a particular category - not necessary across all categories) could go straight from an "iwanto" to an auction and bypass this step altogether.

- This framework for evaluation and recommendation is fully extensible. Additional evaluation criteria could be imposed from external sources. Multiple services can offer recommendations based on the same set of data. All of these features can be integrated into this framework.

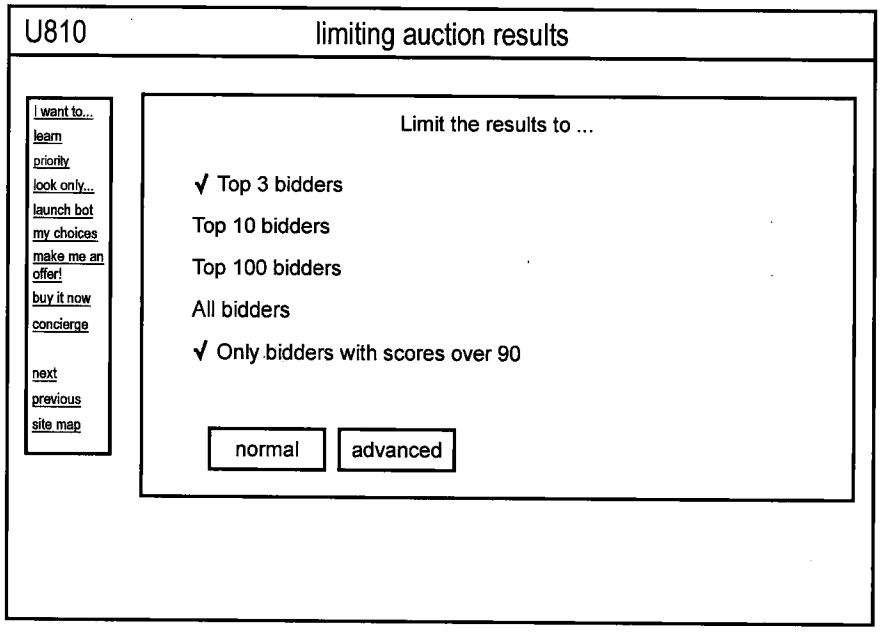
FIG. 39



- When the buyer first comes to "iwanto.com", she is welcomed to the service. When she is ready to ask for her first "make me an offer!", she is asked to fill out a simple registration, which is immediately confirmed by return email. There is no need to fill out her personal profile until she makes her first purchase.

- As new standards emerge of automating the registration process, this declaration might simplify down to just one input - a statement that says "join" or "register". Everything else would be supplied by the locally resident (i.e., browser-based, on the user's computer) or server-based (i.e., remote) database. Numerous standards are supported by the service, including but not limited to Open Profiling Standard (OPS), E-Commerce Markup Language (ECML), Platform for Privacy (P3P), Microsoft Passport, and ancillary services such as TrustE. For buyers who use such functionality, a single button push can upload all the data into the registration process – including the user's name and preferred (default) password.

FIG. 40

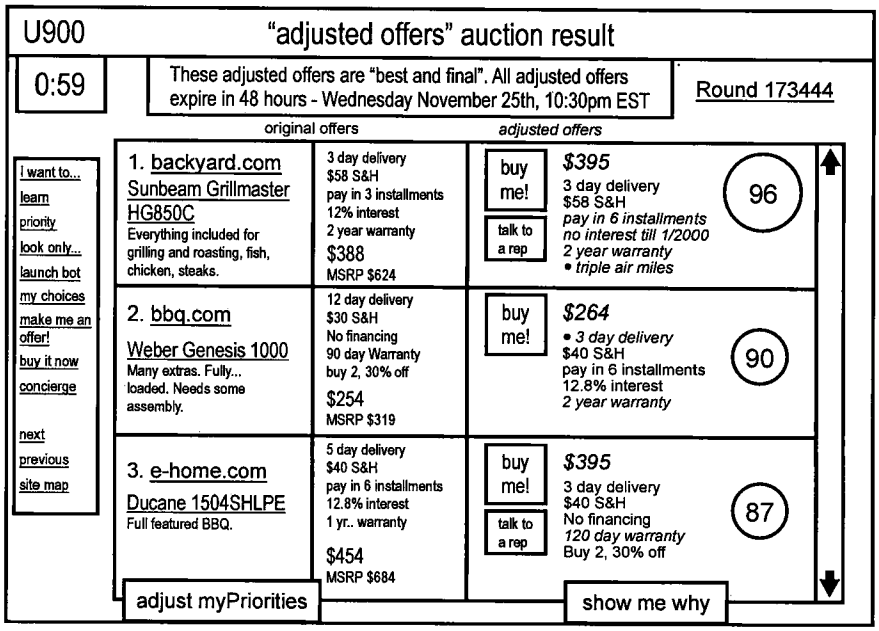


- Throughout the system, a buyer can specify her level of expertise (e.g., beginner, normal, advanced). Each delineation of expertise reveals or hides functionality.

- In this illustration, the buyer can ask to see all the results, or just a subset. She can delimit the search by total score (only scores over 90). For beginners, the limits can be set by the system as a default.

- As with the "look only" functionality before, this is a fully extensible framework. New delimiters can be introduced at any time.

FIG. 41



- The "make me an offer"" button triggers an auction. The buyer sees a seller's clock - the amount of time that a Round is held open for sellers to make adjustments. The service sets the clock for any interval, depending on the nature of the product or service being offered. The buyer is also given a certain amount of time to decide. The service (or in some cases, the sellers) can specify how long their adjusted offers will be valid depending on the product or service being offered. There can be various limits imposed on each Round by the service, e.g., the length of the period, how many time the buyer might want to launch, etc.

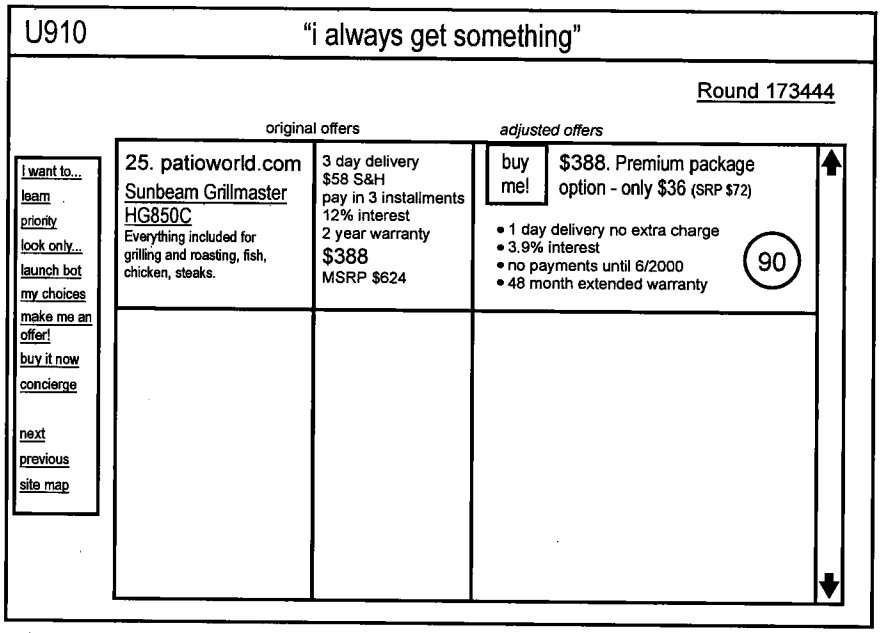
- In reality, the entire auction is taking place inside the iwanto.com servers. During the auction adjustment period (or Round), the buyer does nothing. The seller's offers begin to adjust. Each adjusted offer element can be highlighted or animated. The seller's offers can be submitted as one-time bids. They can be sealed to other sellers until they are all exposed at one time at the end of a round, painted onto the screen to create an entertaining effect.

- At the end of the bidding period, all offers are marked "best and final", whether they were adjusted (via affiliates) or not. During the offer adjustment period, the display shows the top offers, scored and rated. The buyer has the option or either moving to the next stage (a transaction), or re-setting her decision criteria (priorities) and launching another round or adjustments. In this illustration, based on the adjusted offers, backyard.com won the deal with a value score of 96.

- The "show me why" button leads to U1100, showing the buyer why a seller was recommended.

- The "talk to a rep" button enables the buyer to touch the screen and immediately be connected to a human sales representative. This allows the seller to close or upsell the buyer. The function is provided by the seller or by the seller's telemarketing agent. As human representatives are expensive, in this embodiment this functionality is optional - note that one of the sellers, bbq.com, does not support it.

FIG. 42



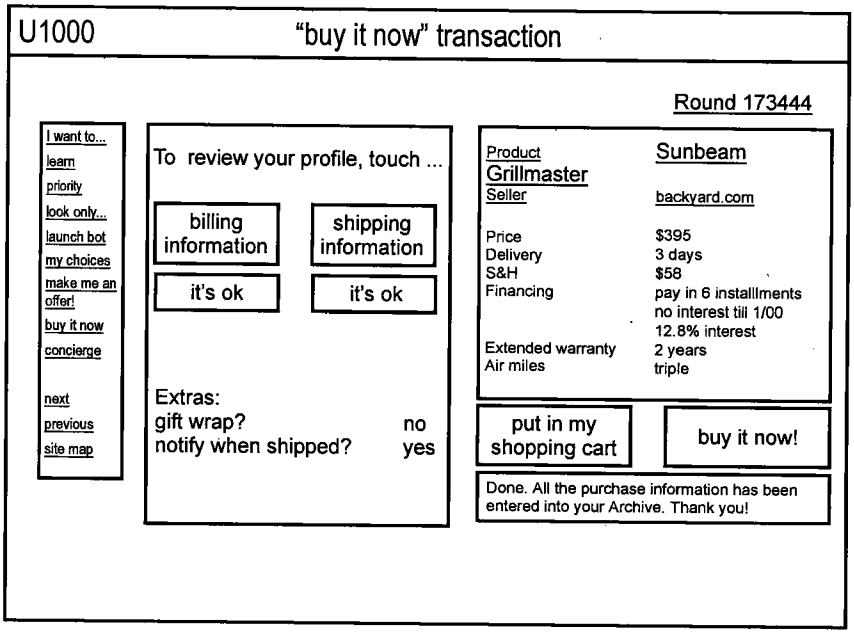
- The buyer's auction is most appealing when there are a large number of adjusted offers and when the buyer always gets something exceptional out of the experience. The buyer's experience is most satisfying when the buyer is assured of receiving something of value when she participates. iwanto.com already guarantees that the buyer receives value in market intelligence (e.g., Consumer Reports, research) and in "my choices" (all the posted offers). iwanto.com can further guarantee that the buyer receives a unique improvement over posted offers, in the form of iwanto-sponsored offers attached to posted offers.

- iwanto.com can guarantee that most or all offers will be adjusted by bundling several "premium" ancillary services into each offer: a) low interest and long no-payment period financing; b) faster delivery methods for the same price; (c) longer extended warranty period for the same price; etc. These ancillary services can be purchased from competitive suppliers and private-labeled by iwanto.com. With sufficient scale and buying power, iwanto.com can purchase these ancillary services at near "most favored nation" cost, and provide them to the buyer at near-cost (or conceivably as a loss-leader). The net effect is that every offer - whether provided by an affiliate or not - can appear to the buyer to be an adjusted offer. The seller's posted offer remains unchanged, and a low cost "premium package" is added to the offer. Posted offers can thus become adjusted offers.

- In this illustration, patioworld.com is not an affiliate player and therefore does not have a bot making adjusted offers. iwanto.com has therefore supplied a "Premium Package" including delivery, financing and warranty. The manufacturer's suggested retail price (MSRP) of the premium package is twice the price being offered. The offer is attached to the product as if patioworld.com were making an adjusted offer. From the buyer's point of view, the single "i want" generated hundreds of adjusted offers in the auction.

- If an unaffiliated seller wins a round, iwanto.com can make an ad-hoc arrangement to collect the 2.5% success fee or offer the first customer as a bonus for affiliating.

FIG. 43



- If this is the buyer's first transaction, she is asked to fill out her personal profile. In the preferred implementation, the buyer is already using one of the profiling utilities and can populate all of the required information with one touch of a button. In subsequent transactions, this information is stored for her convenience in the form of a "concierge". She can review and charge it at any time.

- The service automatically populates all the necessary information, including the winning offer data. The buyer can edit anything inaccurate in her personal profile. The "buy it now!" button complete the transaction.

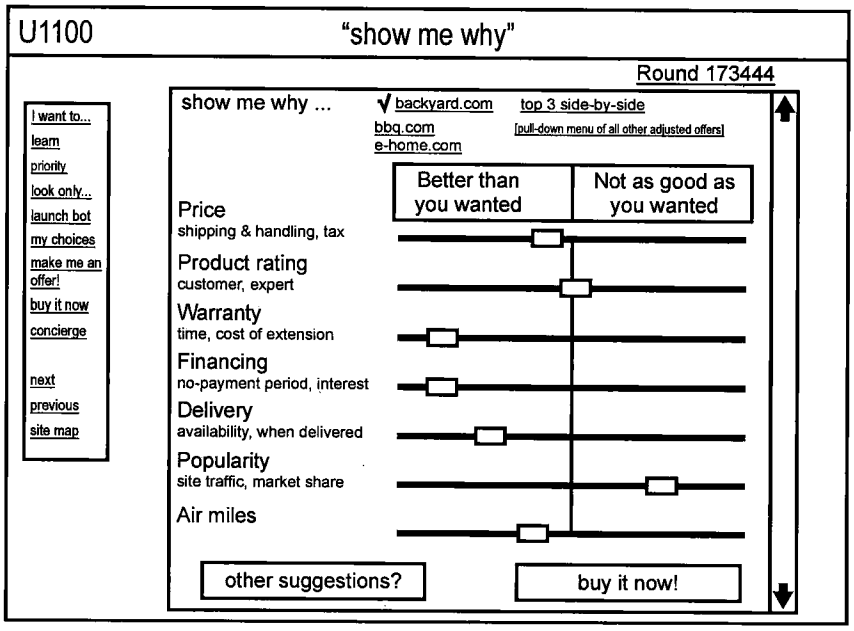
- iwanto.com verifies the billing and shipping data and forwards it to the seller for fulfillment. The seller can issue a tracking number, which is put into the buyer's archive.

- The buyer has a choice of consummating a transaction, or "passing". If the buyer wants to consummate a transaction, she can either do so in situ (within the service site), or exit the service site and go directly to the seller she chooses.

- If the buyer stays within the service site, she is presented with a universal shopping cart. Global personal data can negate the need for multiple registrations and data entry (e.g., credit card, address). All the features available for making the shopping experience simple are deployed here. As an extensible framework of transaction fulfillment, new features and functionality for consummating a transaction can be introduced at any time.

- iwanto.com executes the credit card transaction through the normal bank networks; gives buyer and seller the clearance number; and enters the data into the buyer's archive. The relevant data are passed to the seller in a secure transaction; electronics funds transfer follows. This back-end (discussed further in the seller's section) uses the best practices of business-to-business (B2B) software and services.

FIG. 44



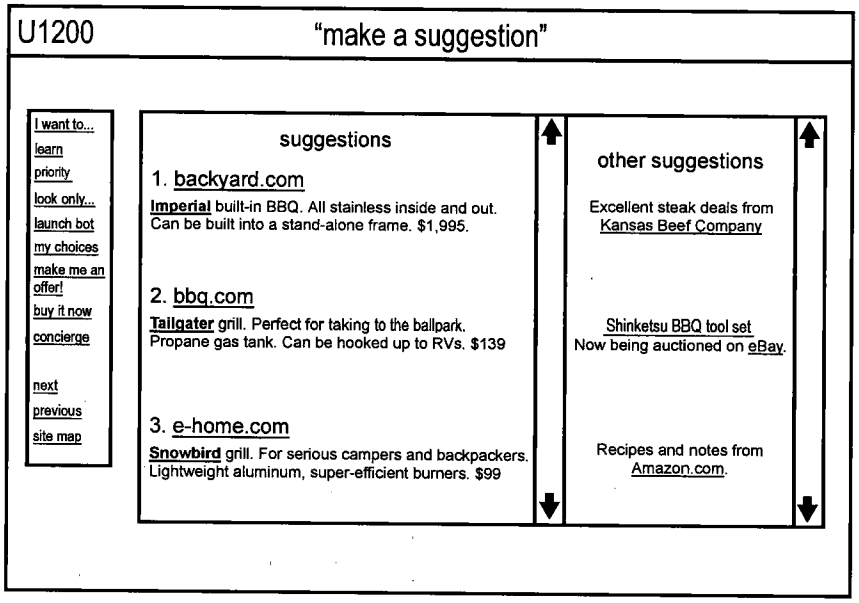
- A buyer might be interested in understanding how a product or service was rated by the recommendation engine. By touching a "show me why" button, the buyer sees the underlying detail.

- The illustration above is one of many ways that the service can display analytic data to the buyer. The data are displayed in easy-to-understand fashion. The buyer's priorities are shown with the actual offer superimposed. The scale can become "better than you wanted" to "not as good as you wanted".

- The buyer can analyze any of the final adjusted offers. In this embodiment, the top three choices can be compared side-by-side (not shown).

- In this illustration, backyard.com did an excellent job responding to the buyer's priorities - especially in financing, warranty and air miles. The price goal was not met, but this seller won the deal. In other words, the buyer was upsold.

FIG. 45



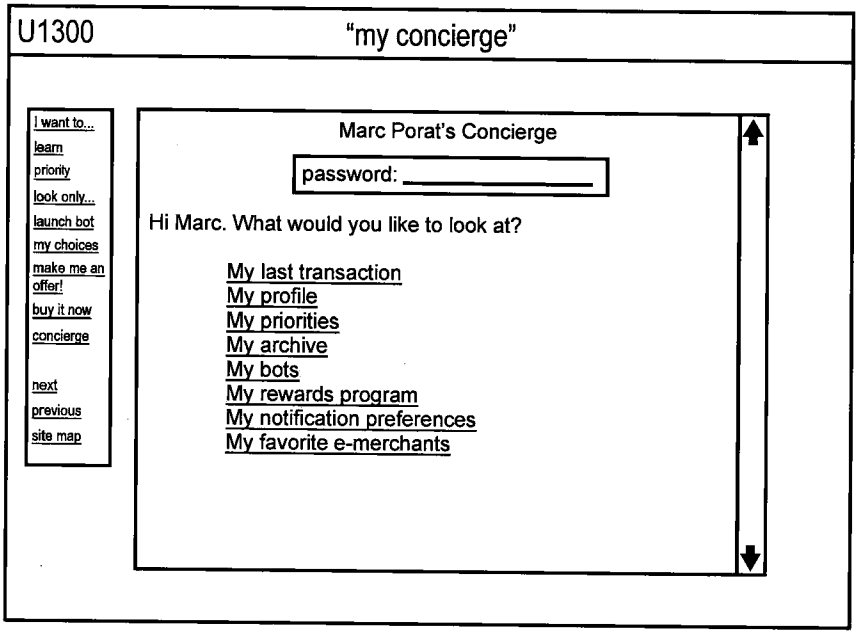
- This page presents another opportunity for sellers to "upsell" the buyer by suggesting not only accessories but also substitution products and services, complementary products and services -- various forms of upgrades to the basic "i want". While the buyer is in a highly motivated and educated state, this is the ideal time for a seller to suggest upgrades.

- The service also has the ability to add various information, e.g., a suggestion module showing other recommended goods and service suggested by the buyer's peer group, various merchant and/or product evaluation content sources used by the service in rendering a rating, etc.

- This framework is fully extensible into many varieties of third party services, including: text chat, voice chat, expert chat, expert consulting, audio (e.g., voice over IP) customer service connection, video business-to-consumer (B2C) connection (see it), and access to seller's promotion material, such as literature, simulations, visualizations, FAQs, etc.

- Ancillary services. Buyers are most satisfied when a large number of sellers offer adjusted "best and final" offers. The iwanto.com service can guarantee that a large number of adjusted offers result from every buyer's auction, whether the e-sellers are affiliated or not, by becoming a private label discount supplier of ancillary services such as: a) longer extended warranty; (b) lower interest and longer no-payment financing; (c) faster method delivery. These support services are ancillary to iwanto.com's core business model. With sufficient aggregated demand (via bulk purchase combined with purchasing power), iwanto.com can expect to procure ancillary services at near "most favored nation" rates - those given 'to the supplier's next customers - and pass those along to the buyer to near zero profit, and in some cases as a loss leader. As the iwanto.com services scales, it can begin to aggregate demand and make affiliation deals that enable the serviced ot offer upgrades for the same price by building in a discount factor (i.e. the same as a large retailer would exercise volume purchasing power, except in this case the demand is based on an annualized flow of demand). In practice, the buyer's request, "make me an offer!" will result in a large number of offers - some will actually be adjusted by the seller's bot, others will be bundled offers that include iwanto.com's private label ancillary services.

FIG. 46



- The service maintains a record of all the "i want to" inquiries and the outcomes of the auctions. This automatically generated personal database - the Concierge - has multiple uses for the buyer, the seller and the system itself. The Concierge covers all relevant functions that are buyer-set, e.g., looking at her archive, profile, rewards program, bookmarks or favorite e-sellers etc. This data base is a valuable source of information to both buyers and sellers.

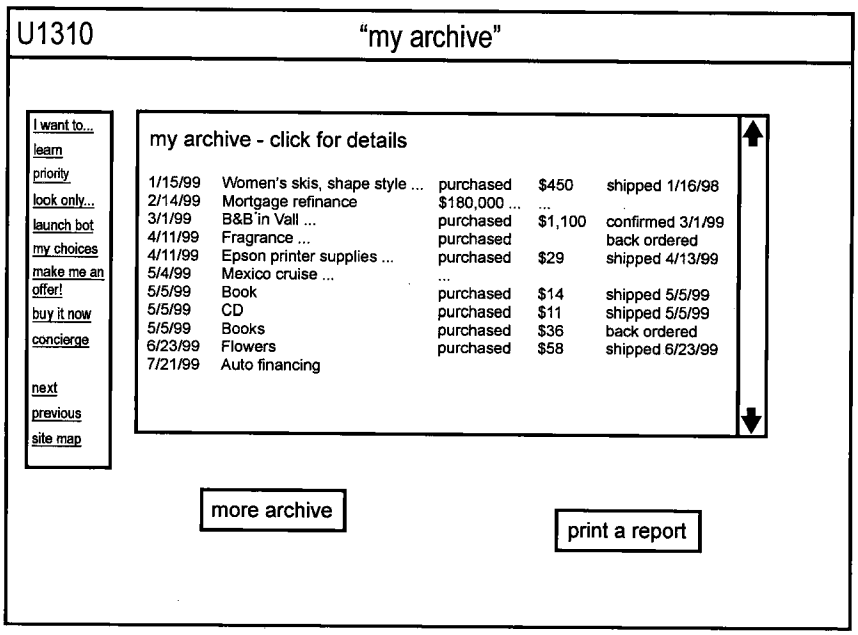
- The buyer's profile, priorities, archive, rewards program, notification preferences and favorite e-merchants all have economic value to sellers and can be auctioned to them in exchange for a consideration to the buyer (e.g., price rebates, price discounts, or loyalty program incentives). These elements can fed into the buyer's business rules for making offer adjustments.

- The buyer has a choice of providing personal data to the sellers. If she wishes complete privacy, none of her personal data will be forwarded with the request for an offer. Alternatively, the buyer can receive various forms of credit for providing her personal data. One method is by awarding her frequent flyer points that can be redeemed at any major airline. She can implement that choice by using a simple UI element.

- The Concierge is also useful as a personal repository for many purposes, especially post-sale activities, e.g., returns, warranty claims, customer service, financing renewal (review of terms) etc.

- The Concierge is an extensible framework. As new applications becomes desirable, they can be implemented into the Concierge. A personal finance illustration might include a budgeting program, a bill presentment and electronic payment program, a tax program etc. The Concierge is also a logical place from which to create, launch and manage automated buyer's bots.

FIG. 47

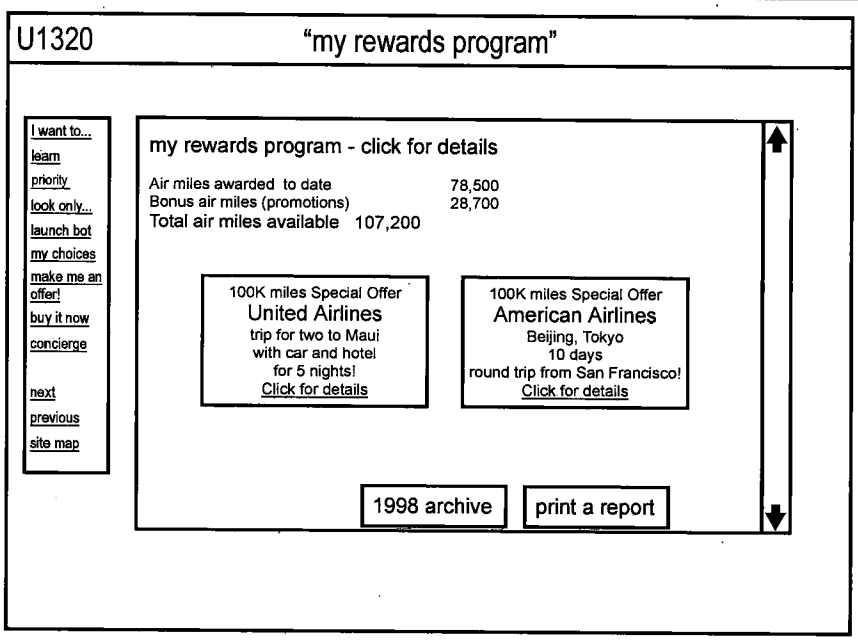


- The Archive is a record all purchases. This is a useful database. The buyer can refer back for further information, reminders etc.

- The Archive contains data not only on consummated transactions but also on transactions not consummated. For illustration, the buyer may have come close to a decision and then stopped. wishing to cycle back, do more research and learning, change her priorities, and then re-enter the market. The Archive gives the buyer a snapshot of where she left the process, and can resume the buyer's auction without having to start from the beginning.

- In the case of subscriptions (e.g., magazines) and evergreen contracts (e.g., cable television), the concierge can remind the buyer or perform automatic functions, such as cancellation, renewal or suggestion of a rebid.

FIG. 48

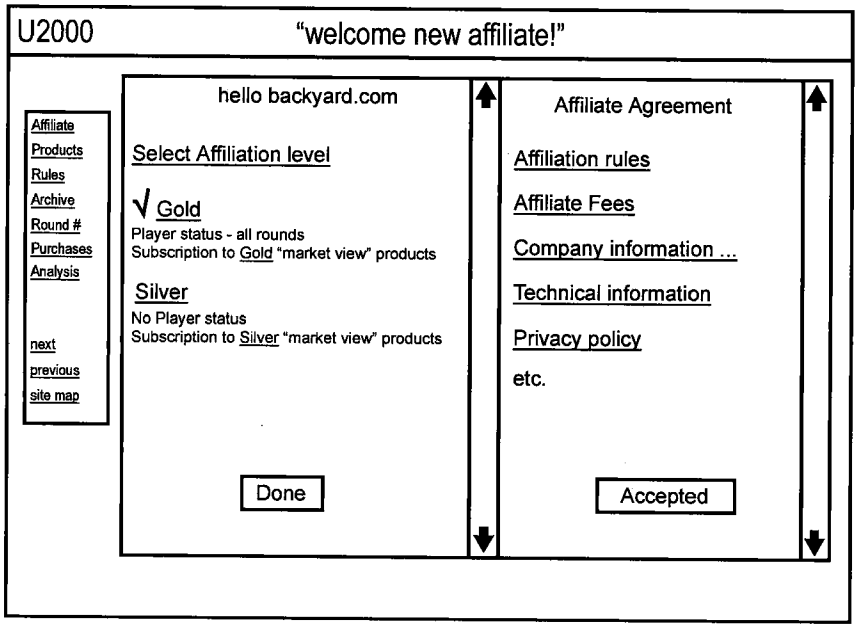


- iwanto.com supports a "my rewards" loyalty and related incentives programs, which can be in affiliation with an airline or credit card or incentives management entity. The points are earned in various ways: a) standard $1 purchased = one point; b) bonus points provided by sellers for special promotions (sales) or in exchange for private information, e.g., profiles; c) bonus points provided by iwanto.com as a promotion, or in conjunction with an incentives program; or some combination, e.g., a joint promotion between iwanto.com and a vendor.

- The buyer can state an "i want" to use up her points, with requests for offers (RFOs) that are conceptually and technically the same as the basic invention. For illustration, the buyer might launch "i want to redeem 100,000 miles for airline travel to Hawaii or somewhere in the Far East." Such an RFO could elicit the bids shown above.

- The rewards program is an open-ended framework - it can use dollars, air miles, coupons or any other valuable consideration.

FIG. 49



- This Affiliation agreement is done on-line. The auction rules are explicit and agreed to by all players. The service needs: a) signed affiliation agreement; b) billing agreement; and c) cognizant officer (or proprietor).

- Affiliation can be implemented at several levels. For example, a simple embodiment can have two levels: (1) Gold - full affiliation status, i.e., the ability to make adjusted offers inside the auction plus access to proprietary data; and (2) Silver- subscription to non-proprietary data only. It is possible that affiliation levels below Gold will also be allowed to make adjusted offers. Alternately, only the top level (Gold) can be a "player" and make adjusted offers.

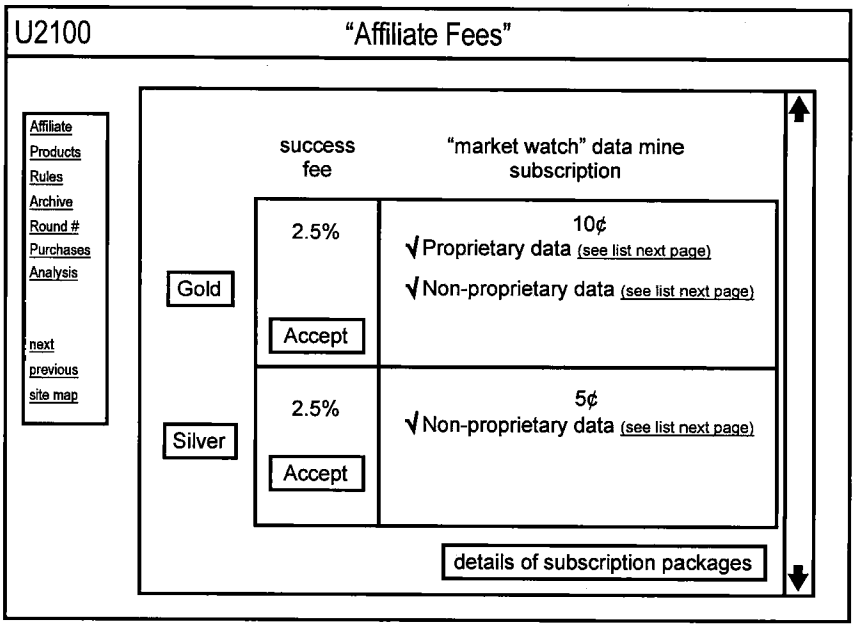
- The auction rules are a framework that enables the iwanto.com service to set explicit policies and processes for how the auction runs, and enables the service to change those rules from time to time - either globally (for all auctions), or for one specific auction (e.g., at a buyer's request for a customized set of auction parameters). Illustrations include the length of the auction period(s); the number of auction period(s) before all adjustments cease; whether offers are closed bid until the end of the period; the length of time that adjusted offers are required to stay binding on the seller and hence the length of time that the buyer has to accept an offer before it is extinguished; the ability for the seller to insert human intervention into the offer adjustment process; the possibility of a "tie" in recommendation value score; whether each score in a subsequent period has to be equal to or greater than the previous value score or whether the score is allowed to float downward; etc. These auction rule agreements are binding on all sellers.

- The adherence to a private policy is part of the affiliation process. The iwanto service can implement a simple or complex set of processes behind this agreement. Some of the procedures can be internal to iwanto.com. Others can involve third party custodians of data or data integrity assurance, e.g., Price Waterhouse Coopers, TrustE, etc.

- The standard navigation bar (vertical, left element) includes short-cuts for the seller.

- In this illustration, the seller selected "gold" affiliate level, entitling him to participate in alll the rounds and to receive the full suite of "market watch" information products. By touching "Affiliate fees", the seller is taken directly to U2100.

FIG. 50



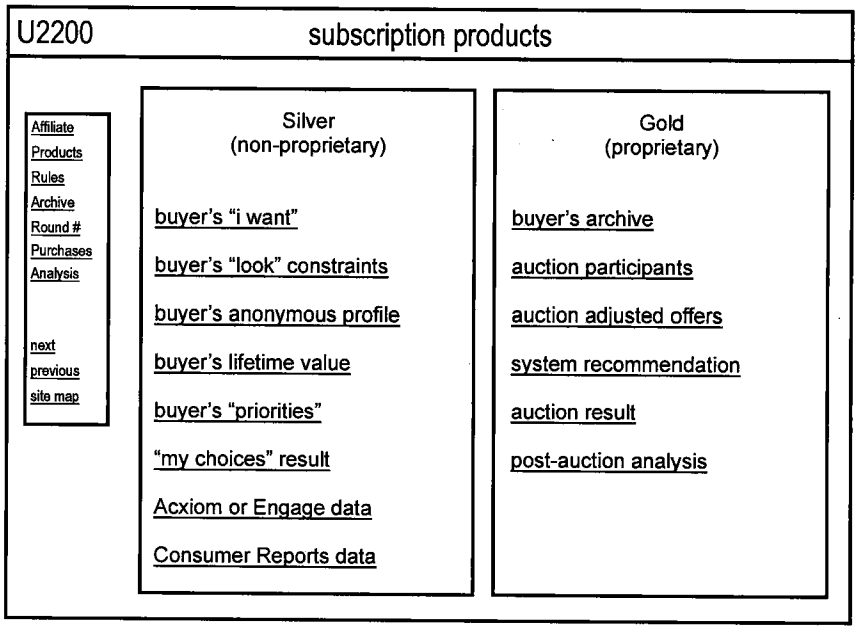
- The fee structure is part of the Affiliation agreement. In this illustration, all sellers pay a success fee of 2.5% of the final product price if they win the bid. Gold affiliates have the right but not the obligation to make adjusted offers Silver affiliates cannot make adjusted offers. In alternative implementations, all sellers might be able to make adjusted offers as long as they are affiliated and thereby pay a success fee. The service might also find it advantageous to set the success fee differently for different products or services, depending on their value; the range of these success fees could be from zero to any percentage agreed to b y the sellers.

- In this illustration, Gold affiliates pay 10¢ per round and receive the entire suite of proprietary "market watch" information. This information contains both publicly available data plus proprietary data that gives details on who bid in the auction, what adjusted offers were made, who won, who lost, and why.

- In this illustration, Silver affiliates pay 5¢ per round to receive the non-proprietary subset of "market watch" information. this non-proprietary information is publicly available but can only be gathered with great effort by the seller. The value of the Silver subscription is instantaneous delivery of relevant information, packaged and aggregated.

- The information products can also be unbundled and priced separately.

FIG. 51



- The various proprietary and non-proprietary "market watch" information product subscriptions can be specified using this panel.

- Gold affiliates receive all the information products shown above (the superset). The proprietary information cannot be acquired anywhere else because it is a direct result of the auction process and only occurs within the iwanto.com site at the time of auction.

- Silver affiliates receive only the non-proprietary information products listed above. This is information that can be acquired by the seller from sources other than iwanto.com.

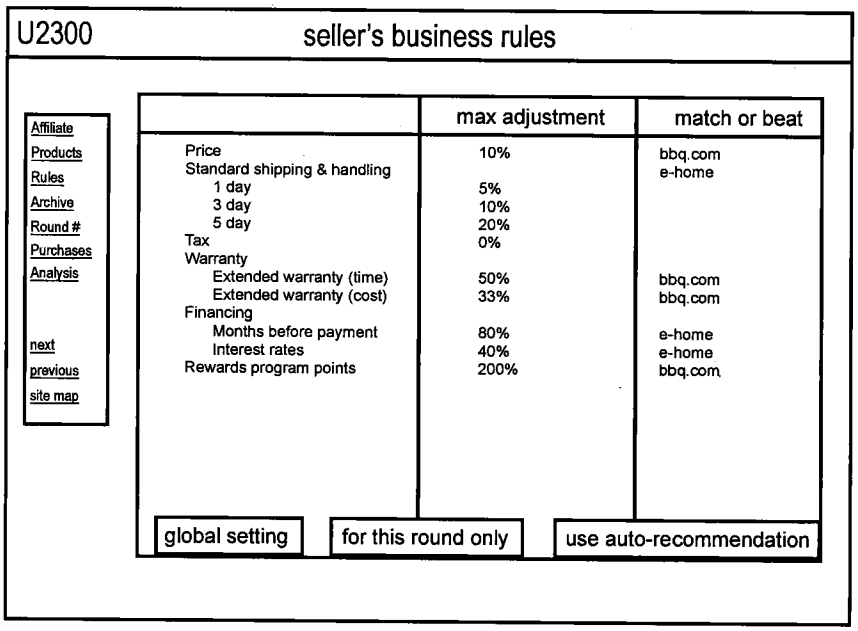
- By touching one of the information products, a seller is transported immediately to that information module (e.g., to the post-auction analysis.

- To price discriminate, the information bundles can be arbitrarily fine-grained and priced differently. The service can support many unique information bundles or packages.

- As shown above with the Acxiom, Engage and Consumer Reports illustrations, the iwanto.com service can also act as a reseller of third party data sources.

- The inventory changes as the service adds new information products. This basic data mining aspect of iwanto is an important aspect of its business (revenue) model.

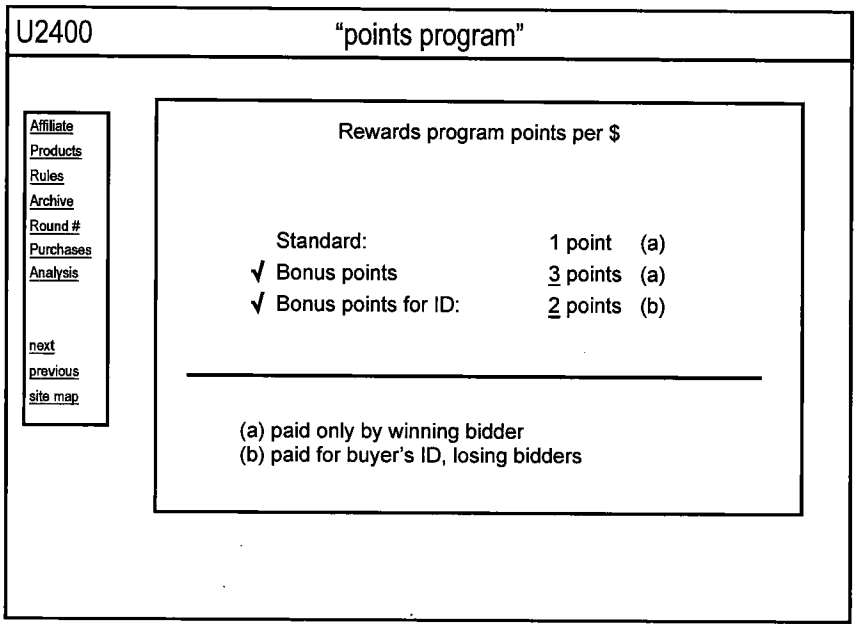
FIG. 52



• One of the first actions of a Gold (or offer-adjusting) affiliate is to set his business rules. Both affiliated and unaffiliated seller's business rules are set to zero at the beginning. By giving all sellers a simple business rules template pre-set to zero, the iwanto service can incorporate all of them into the action adjustment process without waiting for a positive (i.e., non-zero) setting. In the degenerate case, the seller's posted offer will equal his adjusted offer, and both would be deemed "best and final" and so marked ion the user interface. The seller can set his rules in numerous ways, including, without limitation: a) via a global setting - set once for all rounds, irrespective of the buyer's profile; b) for this round only - upon seller's analysis of the buyer and the market; or c) by using auto-recommendation - the iwanto recommender engine can supply a default set of business rules that will match or beat the competition and get the deal. Most sellers (small businesses) can set their business rules by using the template bot supplied by iwanto.com. The business rules template illustrated above presents a simple model to the seller. The simple business rules client will be posted in source code form on the web. Sellers can use and modify the code for free. Sophisticated sellers can drive this template using their own proprietary business rules model. Their confidential business information drives the rules, e.g., competitive data, current cost of capital, inventory levels etc. More sophisticated sellers can drive the iwanto.com template bot via their own proprietary business rules engines. The preferred embodiment accommodates external "drivers" of the many popular business rules engines, e.g., as provided by Oracle, Sybase, SAP, PeopleSoft etc. As the business-to-business (B2B) industry develops new business rule drivers, the iwanto.com platform can accommodate them via APIs supplied by the vendor. The seller can set his business rules numerically (as shown) or by attaching each parameter to a named competitor. This creates a dynamic where certain sellers become price leaders (setters) or terms-of-offer setters. It allows companies to compete with each other with pinpoint accuracy.

• The business rules template is a framework that is extensible. New categories of seller's rules can be added to the template either by the iwanto.com service (open) or suggested by the sellers. For the business rules template to have beneficial effect, there needs to be agreement between the seller, the buyer and the iwanto service about the template elements. Hence, to ensure consistency, the iwanto service can act as custodian of the business rules templates semantics, e.g., the meaning of the term "extended warranty" or "zero-payment period". As other entities - e.g., Ariba, Commerce One - create standards for business-to-business (B2B) commerce, iwanto.com can readily adapt them into this framework.

FIG. 53

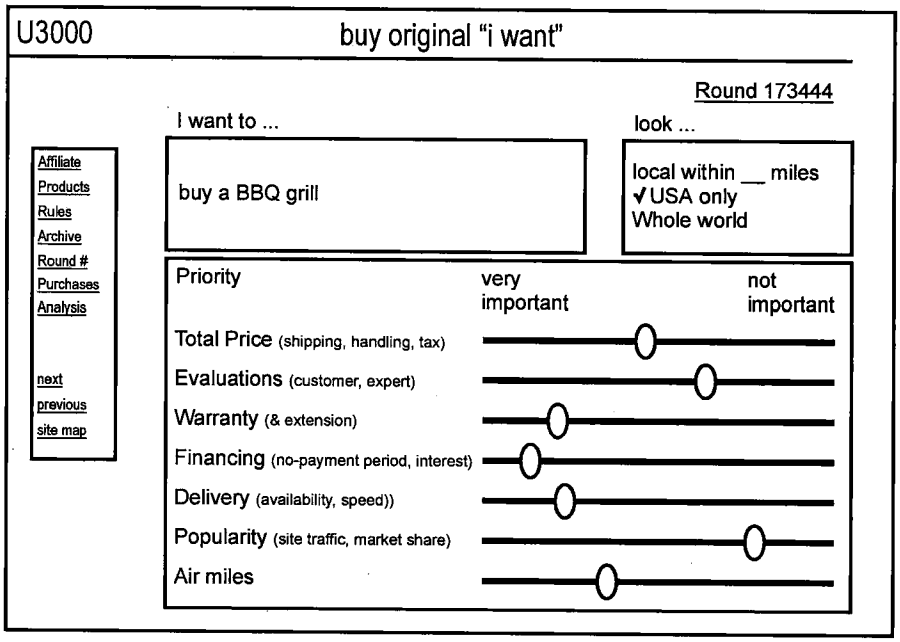


- Sellers set up their loyalty program default policy. In most cases, buyers will expect a 1 point per $1 offer from the winning bidder. In this illustration, the seller has made an offer to pay three points if he wins the deal - that information is fed into the evaluation and recommendation, and may have greater or lesser impact depending on the buyer's priorities. Sellers willing to give more bonus points are more likely to get the deal.

- The "bonus points for ID" is an inducement to the buyer to reveal her name and address before or after the transaction. Obviously the bidding seller who won will know the buyer's identity post-transaction so that the product can be shipped. However, the losing might find the buyer's identity extremely valuable, e.g., for 1:1 marketing and other solicitations.

- The buyer's identity has tangible market value. Whereas anonymous data (e.g., Acxiom) can be readily provided to the sellers, tying it to an actual name and address and email is a much more valuable proposition. This value belongs to the buyer - not to iwanto.com. If the buyer so wishes, her identity itself can be subject to a seller's auction. Here, iwanto.com can provide a powerful date mine for the seller. As the iwanto.com service is based entirely on "permission marketing", it is up to the buyer, in her discretion, whether she wishes to accept an inducement to reveal her identity to the sellers who bid but lost the round. In this illustration, the seller indicates that he is willing to pay 2 points per $1 of value directly to the buyer - even if he lost the round.

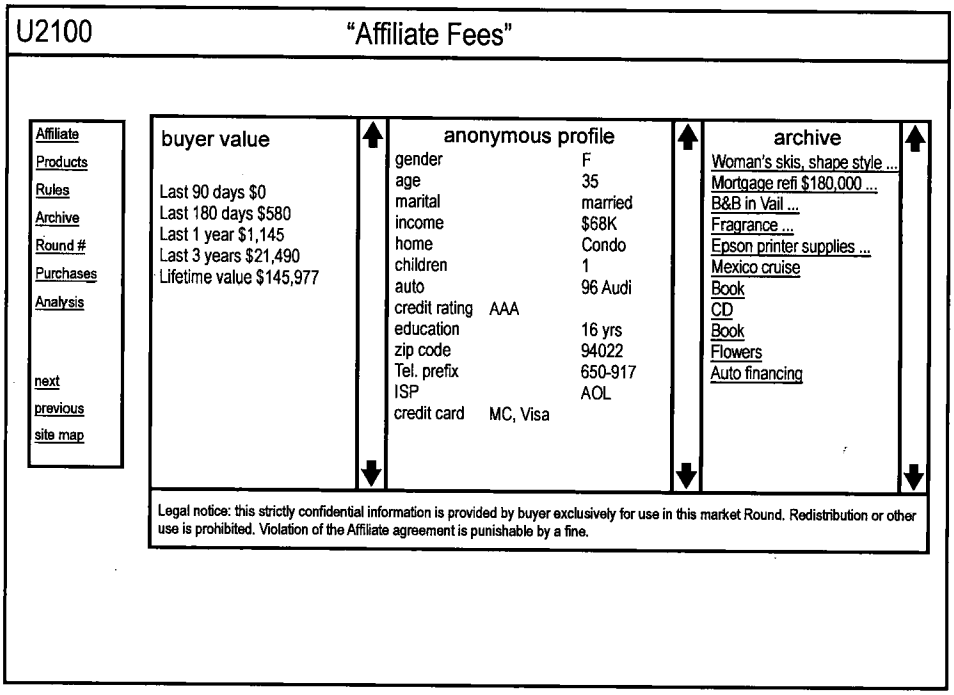
FIG. 54



- All the information necessary to conduct an auction is inside the iwanto.com servers in the form of a database. However, if the seller wishes to see reports of what is going on in each round (in real time or historical archive), a report is generated. The illustration above shows that the seller sees the buyer's RFO (request for an offer); the "look" constrained search delimiters; and the buyer's utility function (priorities). The buyer's identity is not revealed - she is anonymous.

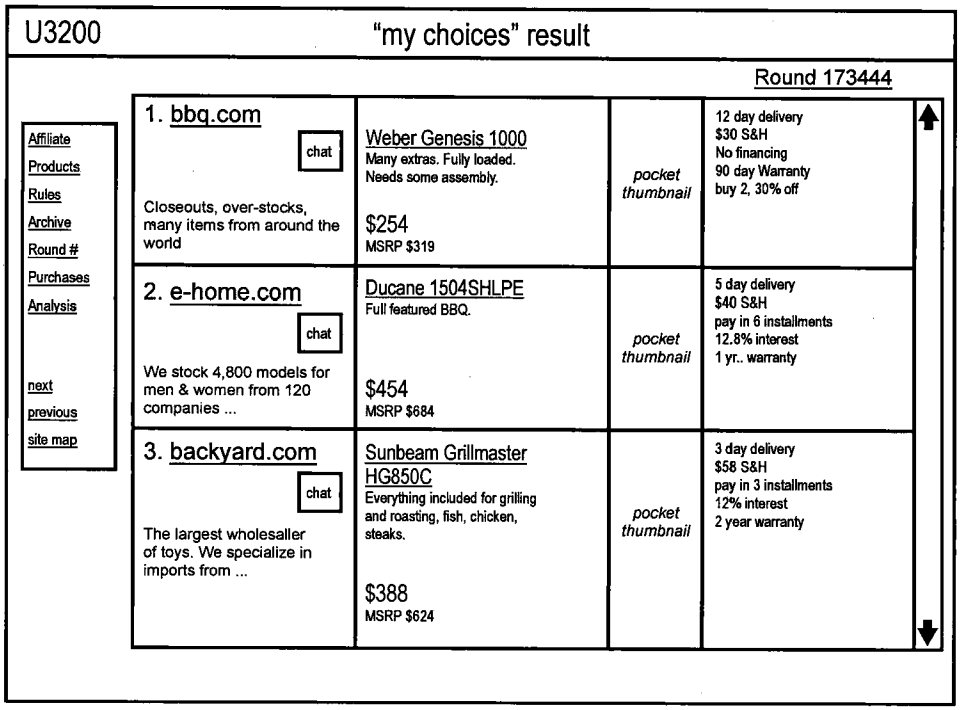
- The seller can manipulate the "my priorities" data using their own models of buyer behavior and market segmentation.

FIG. 55



- Depending on the type of affiliation and the buyer's permission, the seller can see the Buyer's anonymous profile and history. Other data provided to the Gold affiliate seller can include historical and future value of the customer, anonymous demographic data; and an archival history of "iwanto" inquiries. This data mine should increase the seller's chances of winning the business with an optimal offer.

FIG. 56



- The seller sees the result of "my choices". Here is a case where the seller can laboriously search the web for posted offers and discover the same information as presented above. The iwanto.com service value add is to package the correct information at the right time (pre-auction) in the proper form (electronic) such that the seller's bot can take action on it and make an adjusted offer.

FIG. 57

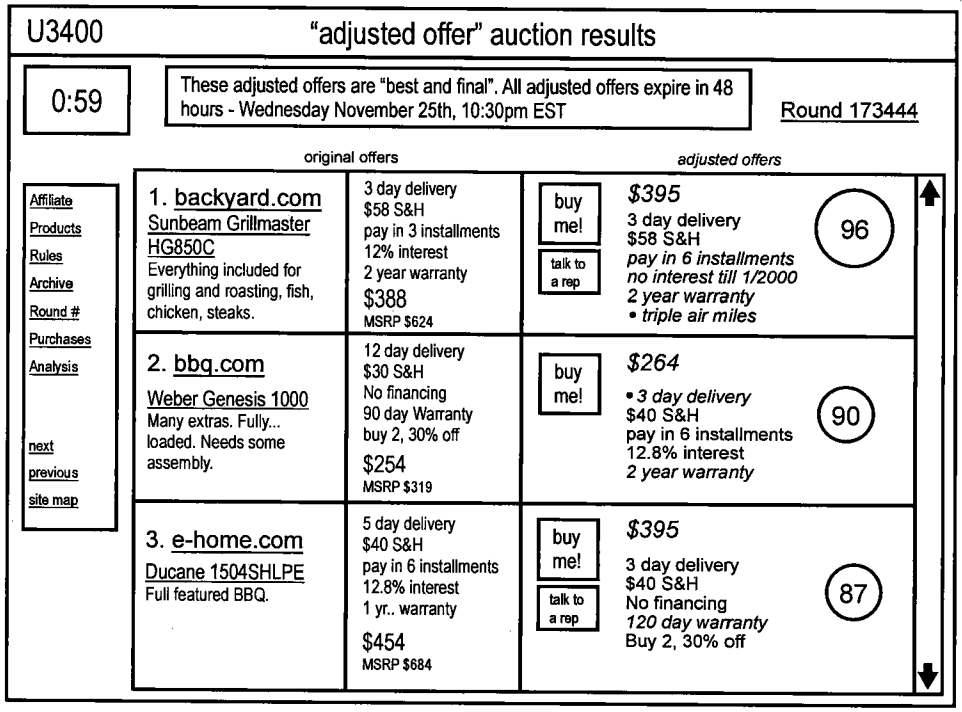
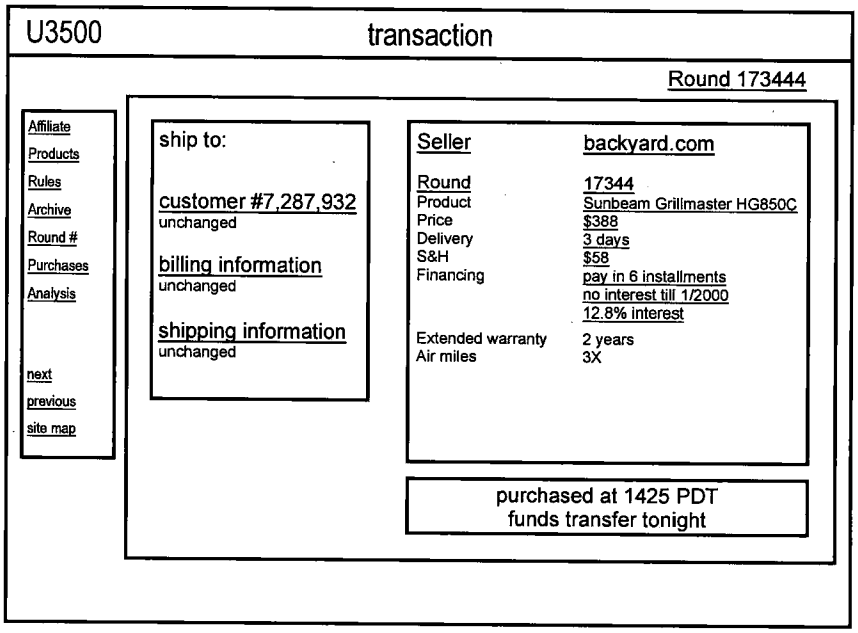

U3400
"adjusted offer" auction results
0:59
These adjusted offers are "best and final". All adjusted offers expire in 48 hours - Wednesday November 25th, 10:30pm EST
Round 173444
original offers
adjusted offers
Affiliate
Products
Rules
Archive
Round #
Purchases
Analysis
next
previous
site map
1. backyard.com
Sunbeam Grillmaster HG850C
Everything included for grilling and roasting, fish, chicken, steaks.
3 day delivery
$58 S&H
pay in 3 installments
12% interest
2 year warranty
$388
MSRP $624
buy me!
talk to a rep
$395
3 day delivery
$58 S&H
pay in 6 installments
no interest till 1/2000
2 year warranty
• triple air miles
96
2. bbq.com
Weber Genesis 1000
Many extras. Fully... loaded. Needs some assembly.
12 day delivery
$30 S&H
No financing
90 day Warranty
buy 2, 30% off
$254
MSRP $319
buy me!
$264
• 3 day delivery
$40 S&H
pay in 6 installments
12.8% interest
2 year warranty
90
3. e-home.com
Ducane 1504SHLPE
Full featured BBQ.
5 day delivery
$40 S&H
pay in 6 installments
12.8% interest
1 yr.. warranty
$454
MSRP $684
buy me!
talk to a rep
$395
3 day delivery
$40 S&H
No financing
120 day warranty
Buy 2, 30% off
87

FIG. 58

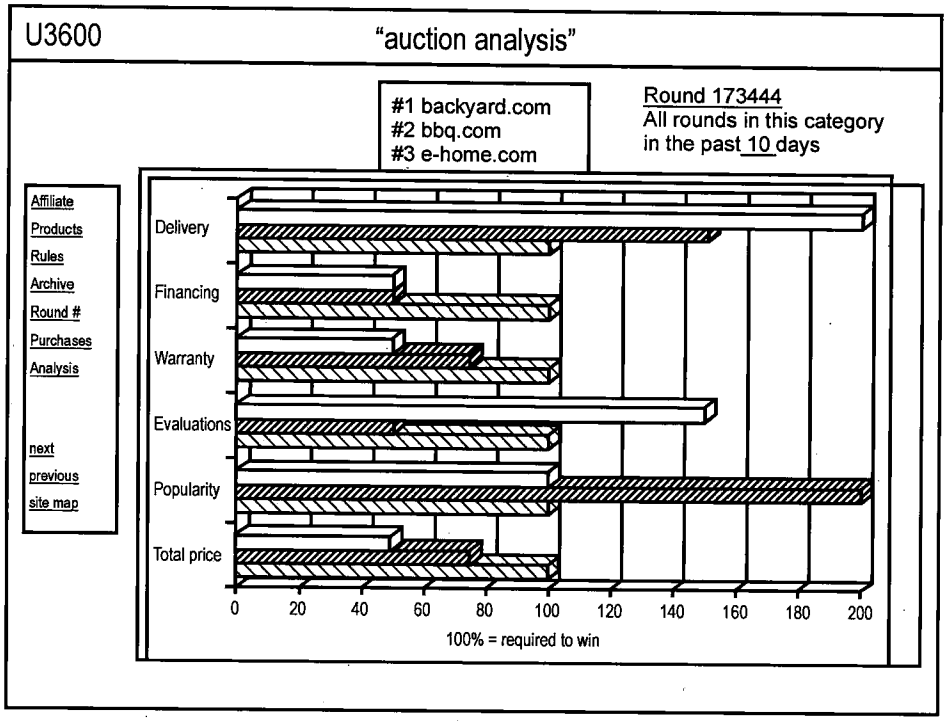


- The seller's affiliation agreement states whether the buyer can do the transaction in situ, or whether the buyer is required to come to the seller's site. The advantages to the buyer of staying in situ are: a) the buyer can stay within one unified environment without going through the resistance barrier of suddenly being in a different environment, with a different UI and additional hurdles such as a re-registration burden; b) the iwanto.com service can aggregate loyalty program points across a number of re-sellers; and c) all the data generated by the transaction are integrated into the concierge for archival uses without any additional effort by the buyer.

- The advantages to the buyer of going to the seller's site are: a) trust (e.g., if a strong brand like Amazon); b) familiarity; and c) integration into the seller's loyalty program.

- In this case, the buyer decided to stay inside iwanto.com service. She approved identifying her by name and address in exchange for air mile points. All the credit card transactions flow directly from iwanto.com's accounts via EFTS into backyard.com's account.

FIG. 59



- In this illustration, only Gold affiliates see this information. The seller sees exactly who won the Round, and why. Various formats can be used for reporting the results of an auction. The results can be reported on a single auction, or they can be aggregated for a set of auctions.

- The service can provide an analysis of each round, or summaries of a large number of rounds. These analytic tools and summaries help the seller analyze how to segment the market and win more rounds. They are constrained optimization problem solvers.

- In this illustration, the winner's offer - backyards.com -- is shown at 100%. By definition, this offer won the bid. The other seller's offers (displayed according to the template with each term analyzed separately) reveals information about the bids. For illustration, e-home can conclude the following: its product had strong third party evaluation an excellent delivery; however the company fell short on warranty (too short), financing (not enough free period) and price (too expensive). The other losing bidder, bbq.com had a different experience. The site is extremely popular and has great delivery time. But also underachieved on warranty and financing.

- This ex-post evaluation framework is extensible in many ways. The actual methods of analysis can be varied. Either iwanto.com or third party companies can create a side business offering analysis of auction results, and sell the analyses as a consulting or subscription service. Also, the reporting formats can vary from that illustrated above. Sophisticated sellers can simply buy the raw data and analyze it themselves.

FIG. 60